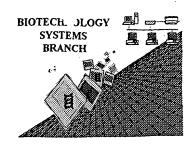
RAW SEQUENCE LISTING ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number:	09/759,508A
Source:	OIPE
Date Processed by STIC:	5/30/2001

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
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FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216. PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax) PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE <u>CHECKER</u> <u>VERSION 3.0 PROGRAM</u>, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address: http://www.uspto.gov/web/offices/pac/checker

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OIPE

RAW SEQUENCE LISTING

: 1

PATENT APPLICATION: US/09/759,508A

DATE: 05/30/2001 TIME: 11:49:00

Due to size of sequeree, only enous pages shown.

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: C:\CRF3\05302001\1759508A.raw

Does Not Comply Corrected Diskette Needed

- 4 <110> APPLICANT: Fishman, Mark C.
- 6 <120> TITLE OF INVENTION: Methods for Diagnosing and Treating
- 7 Heart Disease
- 9 <130> FILE REFERENCE: 00786/381002
- 11 <140> CURRENT APPLICATION NUMBER: US 09/759,508A
- 12 <141> CURRENT FILING DATE: 2001-01-12
- 14 <150> PRIOR APPLICATION NUMBER: US 60/175,787
- 15 <151> PRIOR FILING DATE: 2000-01-12
- 17 <160> NUMBER OF SEQ ID NOS: 11
- 19 <170> SOFTWARE: FastSEQ for Windows Version 4.0

ERRORED SEQUENCES

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1396 <212> TYPE: PRT

1397 <213> ORGANISM: Homo sapiens

1399 <400> SEQUENCE: 2

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1401 1 5 10 15 1402 Val Leu Glu Glu Ser Thr Ala Thr Pha Glu Ala His Ilo Sor Clu

1402 Val Leu Glu Gly Ser Thr Ala Thr Phe Glu Ala His Ile Ser Gly Phe 1403 20 25 30

1404 Pro Val Pro Glu Val Ser Trp Phe Arg Asp Gly Gln Val Ile Ser Thr

1405 35 40 45 1406 Ser Thr Leu Pro Gly Val Gln Ile Ser Phe Ser Asp Gly Arg Ala Lys

1407 50 55 60 1408 Leu Thr Ile Pro Ala Val Thr Lys Ala Asn Ser Gly Arg Tyr Ser Leu

1409 65 70 75 80

1410 Lys Ala Thr Asn Gly Ser Gly Gln Ala Thr Ser Thr Ala Glu Leu Leu 1411 85 90 95

1412 Val Lys Ala Glu Thr Ala Pro Pro Asn Phe Val Gln Arg Leu Gln Ser 1413 100 105 110

1414 Met Thr Val Arg Gln Gly Ser Gln Val Arg Leu Gln Val Arg Val Thr

1415 120 125 1416 Gly Ile Pro Thr Pro Val Val Lys Phe Tyr Arg Asp Gly Ala Glu Ile

1418 Gln Ser Ser Leu Asp Phe Gln Ile Ser Gln Glu Gly Asp Leu Tyr Ser 1419 145 150 155 160

1420 Leu Leu Ile Ala Glu Ala Tyr Pro Glu Asp Ser Gly Thr Tyr Ser Val

1421 165 170 175

1422 Asn Ala Thr Asn Ser Val Gly Arg Ala Thr Ser Thr Ala Glu Leu Leu 1423 180 185 190

1424 Val Gln Gly Glu Glu Glu Val Pro Ala Lys Lys Thr Lys Thr Ile Val

1425 195 200 205 1426 Ser Thr Ala Gln Ile Ser Glu Ser Arg Gln Thr Arg Ile Glu Lys Lys

1427 210 215 220



DATE: 05/30/2001

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/759,508A TIME: 11:49:02

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    2606 Pro Thr Leu Thr Trp Phe Lys Ala Pro Pro Lys Lys Pro Asp Asn Lys
    2607 9650 9655 9660
    2608 Glu Pro Val Leu Tyr Asp Thr His Val Asn Lys Leu Val Val Asp Asp
    2609 9665 9670 9675 9680
    2610 Thr Cys Thr Leu Val Ile Pro Gln Ser Arg Arg Ser Asp Thr Gly Leu
                   9685
                           9690 9695
    2612 Tyr Thr Ile Thr Ala Val Asn Asn Leu Gly Thr Ala Ser Lys Glu Met
    2613 9700 9705 9710
    2614 Arg Leu Asn Val Leu Gly Arg Pro Gly Pro Pro Val Gly Pro Ile Lys
    2615 9715 9720 9725
    2616 Phe Glu Ser Val Ser Ala Asp Gln Met Thr Leu Ser Trp Phe Pro Pro
    2617 9730 9735 9740
    2618 Lys Asp Asp Gly Gly Ser Lys Ile Thr Asn Tyr Val Ile Glu Lys Arg
                                                           TyIt

When

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number under
    2619 9745 9750
                                      9755
    2620 Glu Ala Asn Arg Lys Thr Trp Val His Val Ser Ser Glu Pro Lys Glu
    2621 9765 9770
    2622 Cys Thr Tyr Thr Ile Pro Lys Leu Leu Glu Gly His Glu Tyr Val Phe
    2623 9780 9785
    2624 Arg Ile Met Ala Gln Asn Lys Tyr Gly Ile Gly Glu Pro Leu Asp Ser
    2625 9795 9800
                                             9805
    2626 Glu Pro Glu Thr Ala Arg Asn Leu Phe Ser Val Pro Gly Ala Pro Asp
    2627 9810 9815 9820
    2628 Lys Pro Thr Val Ser Ser Val Thr Arg Asn Ser Met Thr Val Asn Trp
    2629 9825 9830 9835
    2630 Glu Glu Pro Glu Tyr Asp Gly Gly Ser Pro Val Thr Gly Tyr Trp Leu
    2631 9845 9850
    2632 Glu Met Lys Asp Thr Thr Ser Lys Arg Trp Lys Arg Val Asn Arg Asp
    2633 9860 9865 9870
    2634 Pro Ile Lys Ala Met Thr Leu Gly Val Ser Tyr Lys Val Thr Gly Leu
    2635 9875 9880 9885
    2636 Ile Glu Gly Ser Asp Tyr Gln Phe Arg Val Tyr Ala Ile Asn Ala Ala 2637 9890 9895 9900
    2638 Gly Val Gly Pro Ala Ser Leu Pro Ser Asp Pro Ala Thr Ala Arg Asp
    2639 9905 9910
                                       9915 9920
    2640 Pro Ile Ala Pro Pro Gly Pro Pro Phe Pro Lys Val Thr Asp Trp Thr
                   9925 9930
    2642 Lys Ser Ser Ala Asp Leu Glu Trp Ser Pro Pro Leu Lys Asp Gly Gly
    2643
                 9940 9945
    2644 Ser Lys Val Thr Gly Tyr Ile Val Glu Tyr Lys Glu Glu Gly Lys Glu
    2645 9955
                             9960
                                              9965
    2646 Glu Trp Glu Lys Gly Lys Asp Lys Glu Val Arg Gly Thr Lys Leu Val
    2647 9970 9975
                                          9980
    2648 Val Thr Gly Leu Lys Glu Gly Ala Phe Tyr Lys Phe Arg Val Ser Ala
    2649 9985 9990
                                       9995
2650 Val Asn Ile Ala Gly Ile Gly Glu Pro Gly Glu Val Thr Asp Val Ile

E--> 2651 10005 10010 10015

2652 Glu Met Lys Asp Arg Leu Val Ser Pro Asp Leu Gln Leu Asp Ala Ser
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5/30/01

E>	2653				100	20				100	25				100	30	
	2654	Val	Arq	Asp	Arq	Ile	Val	Val	His	Ala	Glv	Glv	Val	Ile	Ara	Ile	Ile
E>	2655		-	100					100		_	-		1004			
	2656	Ala	Tvr	Val	Ser	Glv	Lvs	Pro			Thr	Val	Thr			Met	Asn
E>	2657		100			1	-1-	100					1000	_			11011
	2658	Glu			Leu	Pro	Gln			Thr	Tle	Glu			Δla	Tle	Ser
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E>	2661	DCI	UCI	1100	V 44 1	100		11011	Cys	GIII	1009		1113	Gili	СТУ	1009	_
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F>	2663	Ser	пец	Бец	1010		ASII	GIU		1010		ALG	пур	гу	101:		116
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E>		Olu	102		Val	110	111.9	1021		110	1111	Val	1022		ALG	110	Giu
	2678	Asn			Val	Lve	Glu			Lvs	Asn	Thr			Len	Thr	Trn
E>	2679			Olu	var		1023		1111	БyЗ		1023		1111	шец	1111	10240
	2680			Pro	Lvs				Glv	Ser				Aen	Tur	l eV	
E>					<i></i>	1024		U-1	OL y	001	1025		**	11011	1 Y L	1025	
	2682	Glu	Ser	Ara	Len			Thr	Glu	Lvs			Lvs	Val	Thr		
E>		020		9	1026			****		1026		1110	шуо	· u.	1027		тор
	2684	Asn	Leu	Leu								Glv	T.e.11	Lvs			Asn
E>				1027		9			1028		_,	O _T y	ncu	1028		Cry	risp
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	2688	Pro								Thr	Cvs	T.vs			Len	Ala	Pro
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	2690			Leu	His	Leu			Ara	Asp	Lvs			Tle	Ara	Val	
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E>		014		- 10	1034			O.L.y	**** 9	1034		O L y	ייעיב	110	1035		шуз
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	2696	His	Πe								Ala	Len	G111			Lve	Ala
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	2698	Lvs			Asp	Ser				Cvs	Val	Val		-	Asn	Ser	Thr
E>	2699			501			1039			Cys		1039		JIU	. 1011	JUL	10400
	2700		_											Asn	Hie	Pro	
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	2702		Pro	Val			Val	Ser	Phe			Val	Thr	Lys			Met
E>	2703			_	1042				_	1042					1043		
E>	2704 2705	Val	IIe	Ser 1043		Lys	Pro	Pro	Leu 104		Asp	Gly	Gly	Ser 104		Ile	Thr
	2706	Δen	ጥኒንጉ			Glu	Tue	Tve			C1.	Tvo	7 an	1044	m~~	Mot	Dws
F>	2707	ASII	104	116	116	Gru	цуз	104!	51u	vaı.	сту	пλ2	1046		пр	мес	PIO
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P>	2711	GIU	GTÀ	гуда	ASP	1048		rne	Arg	тте	1049		GIU	Asn	Leu	1049	
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P>	2713	116	ser	Asp	1050		Val	ser		1050		гу	Ald	гÃг	1051	_	Pne
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B>	2715		val	1051			FLO		1052		TTE	val	THE	1052		Int	гуѕ
E>	2716		C02		_						Dwo	ni a	7 ~~			T	D
₽>	2717		1053		neu	var	TIIL	1053		ьуѕ	PLO	итг	-		GTÀ	гÃг	Pro
E>	2718				Ф	Tlo	T 011			7	C1	mh	1054		r	70	m
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E>	2721	мта	ALG	vaı	1111	1056		PLO	тте	птѕ	1057		LIIL	гуѕ	rne		
E>	2722	Pro	Aen	Len	Lan			Cue	Gln	Тиг			λνα	W- 1	Cor	1057	
E>	2723	110	vab	пец	1058		Сту			1058		FIIE			1059		GIU
B/	2724	Aen	Glu	Tlo													Dho
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E>	2727		1061		110			1061		Ser	FIO	110	1062		FIU	GIU	Ald
	2728									Asn	T.011	Thr			Pro	Dro	Ara
E>	2729			1111	1111		1063		Val	пор	Leu	1063	_	0111	LLO	110	10640
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	2731					1064	15				1065	50				1065	· •
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E>	2732			Asp		Glu		Arg			Asn		Thr	Pro		Ser	
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	2732 2733 2734	Val	Gly	Thr	1066 Lys	Glu 50 Tyr	Trp	Val	Thr	1066 Gly	Asn 55	His		Gly	1067 Gln	Ser 70	Cys
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E>	2732 2733 2734	Val Pro Lys	Gly Glu Phe	Thr 1067 Arg	1066 Lys '5	Glu 50 Tyr	Trp	Val	Thr 1068 Asn	1066 Gly 80	Asn 55 Leu	His Arg	Asp	Gly 1068 Ser	1067 Gln 5	Ser 70 Thr	Cys Tyr
E>	2732 2733 2734 2735 2736 2737	Val Pro Lys	Gly Glu Phe 1069	Thr 1067 Arg	1066 Lys '5 Val	Glu 50 Tyr Leu	Trp Lys Ala	Val Val	Thr 1068 Asn	1066 Gly 80 Ala	Asn 55 Leu Ala	His Arg Gly	Asp Glu 1070	Gly 1068 Ser	1067 Gln 85 Asp	Ser 70 Thr Pro	Cys Tyr Ala
E>	2732 2733 2734 2735 2736	Val Pro Lys His	Gly Glu Phe 1069 Val	Thr 1067 Arg	1066 Lys '5 Val	Glu 50 Tyr Leu	Trp Lys Ala	Val Val 1069 Leu	Thr 1068 Asn	1066 Gly 80 Ala	Asn 55 Leu Ala	His Arg Gly	Asp Glu 1070 Leu	Gly 1068 Ser	1067 Gln 85 Asp	Ser 70 Thr Pro	Cys Tyr Ala
E>	2732 2733 2734 2735 2736 2737 2738 2739	Val Pro Lys His	Gly Glu Phe 1069 Val	Thr 1067 Arg 90 Pro	1066 Lys '5 Val Glu	Glu 50 Tyr Leu Pro	Trp Lys Ala Val 1071	Val Val 1069 Leu	Thr 1068 Asn 95 Val	1066 Gly 80 Ala Lys	Asn 55 Leu Ala Asp	His Arg Gly Arg 1071	Asp Glu 1070 Leu	Gly 1068 Ser 0 Glu	1067 Gln 85 Asp Pro	Ser O Thr Pro	Cys Tyr Ala Glu 10720
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E> E>	2732 2733 2734 2735 2736 2737 2738 2739 2740 2741	Val Pro Lys His 1070	Gly Glu Phe 1069 Val 05 Ile	Thr 1067 Arg 00 Pro	Lys '5 Val Glu	Glu 50 Tyr Leu Pro Ala 1072	Trp Lys Ala Val 1071 Asn	Val Val 1069 Leu O Met	Thr 1068 Asn 05 Val	Gly BO Ala Lys	Asn 55 Leu Ala Asp Glu 1073	His Arg Gly Arg 1071 Gln 30	Asp Glu 1070 Leu .5 His	Gly 1068 Ser OO Glu	1067 Gln 85 Asp Pro	Ser 70 Thr Pro Pro Val 1073	Cys Tyr Ala Glu 10720 Gly 85
E> E>	2732 2733 2734 2735 2736 2737 2738 2739 2740 2741 2742	Val Pro Lys His 1070	Gly Glu Phe 1069 Val 05 Ile	Thr 1067 Arg 90 Pro Leu	Lys '5 Val Glu	Glu 60 Tyr Leu Pro Ala 1072 Leu	Trp Lys Ala Val 1071 Asn	Val Val 1069 Leu O Met	Thr 1068 Asn 05 Val	Gly BO Ala Lys	Asn 55 Leu Ala Asp Glu 1073 Lys	His Arg Gly Arg 1071 Gln 30	Asp Glu 1070 Leu .5 His	Gly 1068 Ser OO Glu	1067 Gln 85 Asp Pro	Ser 70 Thr Pro Pro Val 1073 Pro	Cys Tyr Ala Glu 10720 Gly 85
E> E> E>	2732 2733 2734 2735 2736 2737 2738 2739 2740 2741 2742	Val Pro Lys His 1070 Leu Asp	Gly Glu Phe 1069 Val D5 Ile	Thr 1067 Arg 90 Pro Leu	Lys Val Glu Asp	Glu 60 Tyr Leu Pro Ala 1072 Leu 10	Trp Lys Ala Val 1071 Asn 25 Ser	Val Val 1069 Leu O Met	Thr 1068 Asn 05 Val Ala	Gly Gly Ala Lys Arg Ile	Asn 55 Leu Ala Asp Glu 1073 Lys	His Arg Gly Arg 1071 Gln Gly Gly	Asp Glu 1070 Leu .5 His Val	Gly 1068 Ser 00 Glu Ile	1067 Gln 85 Asp Pro Lys Phe 1075	Ser 70 Thr Pro Pro Val 1073 Pro	Cys Tyr Ala Glu 10720 Gly 85 Lys
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E> E> E> E> E>	2732 2733 2734 2735 2736 2737 2738 2740 2741 2742 2743 2744 2745 2746 2747	Val Pro Lys His 1070 Leu Asp Val	Gly Glu Phe 1069 Val S Ile Thr Thr Val 1077	Thr 1067 Arg Pro Leu Leu Trp 1075 Thr	1066 Lys '5 Val Glu Asp Arg 1074 Lys i5 Pro	Glu Glu Tyr Leu Pro Ala 1072 Leu Cu Lys Val	Lys Ala Val 1071 Asn Ser Glu Gly	Val Val 1069 Leu 0 Met Ala Asp Ser	Thr 1068 Asn 5 Val Ala Ile Arg 1076 Lys	Arg Ile 1074 Asp Leu	Asn 55 Leu Ala Asp Glu 1073 Lys 15 Ala	His Arg Gly Arg 1071 Gln 30 Gly Pro	Asp Glu 1070 Leu 5 His Val Thr Arg	Gly 1068 Ser 00 Glu Ile Pro Lys 1076 Asn	1067 Gln 35 Asp Pro Lys Phe 1075 Ala 55	Ser 70 Thr Pro Val 1073 Pro 50 Arg	Cys Tyr Ala Glu 10720 Gly S5 Lys Ile His
E> E> E> E>	2732 2733 2734 2735 2736 2737 2738 2740 2741 2742 2743 2744 2745 2746	Val Pro Lys His 1070 Leu Asp Val	Gly Glu Phe 1069 Val S Ile Thr Thr Val 1077	Thr 1067 Arg Pro Leu Leu Trp 1075 Thr	1066 Lys '5 Val Glu Asp Arg 1074 Lys i5 Pro	Glu Glu Tyr Leu Pro Ala 1072 Leu Cu Lys Val	Lys Ala Val 1071 Asn Ser Glu Gly	Val Val 1069 Leu O Met Ala Asp Ser 1077	Thr 1068 Asn 5 Val Ala Ile Arg 1076 Lys	Arg Ile 1074 Asp Leu	Asn 55 Leu Ala Asp Glu 1073 Lys 15 Ala	His Arg Gly Arg 1071 Gln 30 Gly Pro	Asp Glu 1070 Leu 5 His Val Thr Arg	Gly 1068 Ser 00 Glu Ile Pro Lys 1076 Asn	1067 Gln 35 Asp Pro Lys Phe 1075 Ala 55	Ser 70 Thr Pro Val 1073 Pro 50 Arg	Cys Tyr Ala Glu 10720 Gly S5 Lys Ile His
E> E> E> E> E>	2732 2733 2734 2735 2736 2737 2738 2740 2741 2742 2744 2745 2746 2748 2749	Val Pro Lys His 1070 Leu Asp Val Asp	Gly Glu Phe 1069 Val S Ile Thr Thr Val 1077 Asp	Thr 1067 Arg 90 Pro Leu Trp 1075 Thr 70 Gly	1066 Lys '5 Val Glu Asp Arg 1074 Lys '5 Pro	Glu 50 Tyr Leu Pro Ala 1072 Leu 60 Lys Val Ile	Lys Ala Val 1071 Asn Ser Glu Gly Tyr 1079	Val Val 1069 Leu 0 Met Ala Asp Ser 1077 Ser	Thr 1068 Asn 5 Val Ala Ile Arg 1076 Lys 5 Leu	1066 Gly 30 Ala Lys Arg Ile 1074 Asp 50 Leu	Asn 55 Leu Ala Asp Glu 1073 Lys 5 Ala Glu Val	His Arg Gly Arg 1071 Gln Gly Pro Ile Glu 1079	Asp Glu 1070 Leu 5 His Val Thr Arg 1078 Asn	Gly 1068 Ser 00 Glu Ile Pro Lys 1076 Asn 00 Pro	1067 Gln 85 Asp Pro Lys Phe 1075 Ala 55 Ala	Ser 70 Thr Pro Pro Val 1073 Pro 60 Arg Ala Gly	Cys Tyr Ala Glu 10720 Gly S5 Lys Ile His Ser 10800
E> E> E> E> E>	2732 2733 2734 2735 2736 2737 2738 2740 2741 2742 2743 2744 2745 2746 2748	Val Pro Lys His 1070 Leu Asp Val Asp	Gly Glu Phe 1069 Val S Ile Thr Thr Val 1077 Asp	Thr 1067 Arg 90 Pro Leu Trp 1075 Thr 70 Gly	1066 Lys '5 Val Glu Asp Arg 1074 Lys '5 Pro	Glu 50 Tyr Leu Pro Ala 1072 Leu 60 Lys Val Ile	Lys Ala Val 1071 Asn Ser Glu Gly Tyr 1079	Val Val 1069 Leu 0 Met Ala Asp Ser 1077 Ser	Thr 1068 Asn 5 Val Ala Ile Arg 1076 Lys 5 Leu	1066 Gly 30 Ala Lys Arg Ile 1074 Asp 50 Leu	Asn 55 Leu Ala Asp Glu 1073 Lys 5 Ala Glu Val	His Arg Gly Arg 1071 Gln Gly Pro Ile Glu 1079	Asp Glu 1070 Leu 5 His Val Thr Arg 1078 Asn	Gly 1068 Ser 00 Glu Ile Pro Lys 1076 Asn 00 Pro	1067 Gln 85 Asp Pro Lys Phe 1075 Ala 55 Ala	Ser 70 Thr Pro Pro Val 1073 Pro 60 Arg Ala Gly	Cys Tyr Ala Glu 10720 Gly S5 Lys Ile His Ser 10800

	2751					100) E				108	. ^				100	
E>		7)	7	T	C1	1080		C1	T1 -	7			.		m	108	
	2752		ASP	ьец			ser	GIU	тте			ASP	ser	Cys			Thr
ビ~->	2753		T	01	1082			4	~ 1	1082			~ 1	m)	1083		
_	2754	Trp	гăг			Leu	Asp	Asp			Ser	Val	He			Tyr	Val
E>	2755			108					108					1084			
	2756	Val			Arg	Asp	Val			Ala	Gln	Trp			Leu	Ser	Ala
E>	2757		108					108					1086				
	2758			Lys	Lys	Lys			Phe	Ala	Lys			Asn	Glu	Gly	Asn
E>	2759						108					108					10880
	2760	Gln	Tyr	Leu	Phe	Arg	Val	Ala	Ala	Glu	Asn	Gln	Tyr	Gly	Arg	Gly	Pro
E>	2761					108					1089					1089	
	2762	Phe	Val	Glu	Thr	Pro	Lys	Pro	Ile	Lys	Ala	Leu	Asp	Pro	Leu	His	Pro
E>	2763				1090	00				1090	05				1093	LO	
	2764	Pro	Gly	Pro	Pro	Lys	Asp	Leu	His	His	Val	Asp	Val	Asp	Lys	Thr	Glu
E>	2765			109	15		_		1092	20				1092	25		
	2766	Val	Ser	Leu	Val	Trp	Asn	Lys	Pro	Asp	Arg	Asp	Gly	Gly	Ser	Pro	Ile
E>	2767		1093			_		1093		_	_	_	1094				
	2768	Thr	Gly	Tyr	Leu	Val	Glu	Tyr	Gln	Glu	Glu	Gly	Thr	Gln	Asp	Trp	Ile
E>	2769		45 ⁻	•			109					109			_	-	10960
	2770		Phe	Lys	Thr	Val	Thr	Asn	Leu	Glu	Cys	Val	Val	Thr	Gly	Leu	Gln
E>	2771	-		-		109					109				-	109	
	2772	Gln	Gly	Lys	Thr	Tyr	Arg	Phe	Arg	Val	Lys	Ala	Glu	Asn	Ile	Val	Gly
E>	2773		-		1098					1098					1099		-
	2774	Leu	Glv	Leu	Pro	Asp	Thr	Thr	Ile	Pro	Ile	Glu	Cvs	Gln	Glu	Lvs	Leu
E>	2775		4	1099		•			1100				_	1100		-	
	2776	Val	Pro	Pro	Ser	Val	Glu	Leu	Asp	Val	Lvs	Leu	Ile	Glu	Glv	Leu	Val
E>	2777		1101					1101			-		1102		•		
	2778	Val	Lvs	Ala	Glv	Thr	Thr	Val	Ara	Phe	Pro	Ala	Ile	Ile	Ara	Glv	Val
E>	2779				-		110		-			1103			_	-	11040
	2780	Pro	Val	Pro	Thr	Ala	Lvs	Trp	Thr	Thr	Asp	Glv	Ser	Glu	Ile	Lvs	Thr
E>	2781					1104		•			1105					1109	
	2782	Asp	Glu	His	Tvr								Ser	Ser			
E>	2783				1106					1106					110		
	2784		Lvs	Asn			Ara	Ara	Asp			Glu	Tvr	Gln.		-	Val
E>	2785		~, 0	110		200	•• 9		1108		1			1108			
	2786	Ser	Asn			Glv	Ser								_	Val	Leu
E>	2787	J J Z	1109			1		1109					1110				200
	2788	Aso			Glv	Pro	Pro			Pro	Tle	Asn			Asp	Val	Thr
E>	2789									110		1111		200	1150	var	11120
	2790													Aen	Δερ	G1 v	
F>	2791	110	GIU	1113	riec	1112		Ser	rrp	OTII	1113		цуз	АЗР	лэр	111:	
E>	2792	Sar	Dro	I e V	Tla			Tla	Val	Glu			Aen	Thr	Δνα		
F>	2793	Ser	FIO		1114		тут	116	vaı		цуз 15				1115		лэр
E>					1114												71.
		Th~	Tran	Clar	17 n 1	17 ~ 1	202	802	C1	Cc~	802	Tree	ጥኮ~	T ***	Ton	T 120	
₽- >	2794	Thr	Trp	-		Val	Ser	Ser			Ser	Lys	Thr	-		Lys	TTE
E>	2794 2795		_	1115	55				1116	50		_		1116	5 5	_	
	2794 2795 2796		His	111! Leu	55			Cys	1116 Glu	50		_	Arg	1116 Val	5 5	_	
	2794 2795 2796 2797	Pro	His	111! Leu 70	55 Gln	Lys	Gly	Cys	1116 Glu 75	50 Tyr	Val	Phe	Arg	1116 Val 80	8 5 Arg	Ala	Glu
E>	2794 2795 2796 2797 2798	Pro Asn	His 1117 Lys	111! Leu 70	55 Gln	Lys	Gly Gly	Cys 111 Pro	1116 Glu 75	50 Tyr	Val	Phe Ser	Arg 1118 Thr	1116 Val 80	8 5 Arg	Ala	Glu Ala
E>	2794 2795 2796 2797	Pro Asn	His 1117 Lys	111! Leu 70	55 Gln	Lys	Gly	Cys 111 Pro	1116 Glu 75	50 Tyr	Val	Phe	Arg 1118 Thr	1116 Val 80	8 5 Arg	Ala	Glu

	2800		His	Lys				Pro	Ser	Pro							
E>	2801					1120										112	15
	2802		тте				Ala	Ala				Trp	Thr				Ser
E>	2803		~1		1122		- 1	_,		1122					1123		
	2804															Glu	Val
E>	2805				35				1124					1124		_	_
	2806				Trp	vai	Arg			rys	Thr				Asp	Leu	Lys
E>	2807		112		m1	01	7	112		~ 1	_		1126			_	
	2808		Arg	Val	Thr	GLY											
ドーーン	2809				7				-			1127					11280
	2810	Pne	Ата	GIU				GTÀ	Leu				Ser	Pro			
F:>	2811	Π.	- 1			1128		_	T 1		1129		~-	_		1129	
	2812		тте	глs	Ala	Cys	Arg	Pro	lle					Pro			Asn
E>	2813		7	T	1130	00	Ŧ	~						_	1131		
	2814	Pro				Asp					Thr	Ala	_			Trp	Thr
E>	2815	T		113:		7			1132		~ 1			1132			
	2816			Leu	ser	Asp	стА								val	Val	Glu
E>	2817								35				1134		~		01
₽>	2818 2819				PLO									Asn	ьys	Asp	
E>	2820								7. ~~	17-1	Dwa	1135		т1.	C1	C1	11360
F>	2821	пец	116	ALG		1136	nra E	rne	Arg	val			ьец			1137	
E/	2822	Glu	Фur	Δrα													
E>	2823	OLU	ı yı		1138		116	цуз		1138		TTG	Val	СТУ	1139		GIU
	2824	Pro	Ara				Glu	Ser				Luc	Aen	Tlo			Pro
E>	2825		9	1139		713 U	014		1140					1140		1173	LLO
	2826		Glu			Leu	Asp						Val	Tle	Thr	Val	Ara
E>	2827		1141					1141		0,0			1142		****	• • • •	1119
_	2828	Val			Thr	Ile				Ala	Ara				Ara	Pro	G) 11
E>	2829	11/1	1				1143	30			5	1143			9		11440
		77.44	25														
	2830											Val	Leu	Val	Ara	Glu	
E>	2830 2831				Thr		Thr			Gly		Val	Leu	Val		Glu 114 5	Lys
E>	2831	Pro	Asp	Ile	Thr	Trp	Thr 15	Lys	Glu	Gly	Lys 1145	Val	Leu			1145	Lys 5 5
	2831 2832 2833	Pro Arg	Asp Val	Ile Asp	Thr Leu 1146	Trp 1144 Ile 50	Thr 1 5 Gln	Lys Asp	Glu Leu	Gly Pro 1146	Lys 1145 Arg 5	Val 80 Val	Leu Glu	Leu	Gln 1147	1145 Ile 0	Lys 55 Lys
	2831 2832	Pro Arg	Asp Val	Ile Asp	Thr Leu 1146	Trp 1144 Ile 50	Thr 1 5 Gln	Lys Asp	Glu Leu	Gly Pro 1146	Lys 1145 Arg 5	Val 80 Val	Leu Glu	Leu	Gln 1147	1145 Ile 0	Lys 55 Lys
	2831 2832 2833 2834 2835	Pro Arg Glu	Asp Val Ala	Ile Asp Val 1147	Thr Leu 1146 Arg	Trp 1144 Ile 50 Ala	Thr I 5 Gln Asp	Lys Asp His	Glu Leu Gly 1148	Gly Pro 1146 Lys 80	Lys 1145 Arg 55 Tyr	Val 00 Val Ile	Leu Glu Ile	Leu Ser 1148	Gln 1147 Ala 85	1145 Ile '0 Lys	Lys 55 Lys Asn
E>	2831 2832 2833 2834 2835 2836	Pro Arg Glu Ser	Asp Val Ala Ser	Ile Asp Val 1147 Gly	Thr Leu 1146 Arg	Trp 1144 Ile 50 Ala	Thr IS Gln Asp	Lys Asp His Gly	Glu Leu Gly 1148 Ser	Gly Pro 1146 Lys 80	Lys 1145 Arg 55 Tyr	Val 00 Val Ile	Leu Glu Ile	Leu Ser 1148	Gln 1147 Ala 85	1145 Ile '0 Lys	Lys 55 Lys Asn
E>	2831 2832 2833 2834 2835 2836 2837	Pro Arg Glu Ser	Asp Val Ala Ser 1149	Ile Asp Val 1147 Gly	Thr Leu 1146 Arg 75 His	Trp 1144 Ile 50 Ala Ala	Thr IS Gln Asp Gln	Lys Asp His Gly 1149	Glu Leu Gly 1148 Ser	Gly Pro 1146 Lys SO Ala	Lys 1145 Arg 55 Tyr	Val OO Val Ile Val	Leu Glu Ile Asn 1150	Leu Ser 1148 Val	Gln 1147 Ala 85 Leu	1145 Ile '0 Lys Asp	Lys 55 Lys Asn Arg
E> E>	2831 2832 2833 2834 2835 2836 2837 2838	Pro Arg Glu Ser Pro	Asp Val Ala Ser 1149 Gly	Ile Asp Val 1147 Gly	Thr Leu 1146 Arg 75 His	Trp 1144 Ile 50 Ala Ala Gln	Thr IS Gln Asp Gln Asn	Lys Asp His Gly 1149 Leu	Glu Leu Gly 1148 Ser	Gly Pro 1146 Lys SO Ala	Lys 1145 Arg 55 Tyr	Val OO Val Ile Val	Leu Glu Ile Asn 1150	Leu Ser 1148 Val	Gln 1147 Ala 85 Leu	1145 Ile '0 Lys Asp	Lys 55 Lys Asn Arg
E> E>	2831 2832 2833 2834 2835 2836 2837 2838 2839	Pro Arg Glu Ser Pro 1150	Asp Val Ala Ser 1149 Gly 05	Asp Val 1147 Gly 90 Pro	Thr Leu 1146 Arg 75 His Cys	Trp 1144 Ile 50 Ala Ala Gln	Thr IS Gln Asp Gln Asn 1151	Asp His Gly 1149 Leu	Glu Leu Gly 1148 Ser 55 Lys	Pro 1146 Lys 80 Ala	Lys 1145 Arg 55 Tyr Ile Thr	Val 50 Val Ile Val Asn 1151	Leu Glu Ile Asn 1150 Val 5	Leu Ser 1148 Val O Thr	Gln 1147 Ala 35 Leu Lys	1145 Ile 'O Lys Asp Glu	Lys 55 Lys Asn Arg Asn 11520
E> E> E>	2831 2832 2833 2834 2835 2836 2837 2838 2839 2840	Pro Arg Glu Ser Pro 1150	Asp Val Ala Ser 1149 Gly 05	Asp Val 1147 Gly 90 Pro	Thr Leu 1146 Arg 75 His Cys Ser	Trp 1144 11e 50 Ala Ala Gln Trp	Thr 15 Gln Asp Gln Asn 1151 Glu	Asp His Gly 1149 Leu	Glu Leu Gly 1148 Ser 55 Lys	Pro 1146 Lys 80 Ala	Lys 1145 Arg 55 Tyr Ile Thr	Val 50 Val Ile Val Asn 1151	Leu Glu Ile Asn 1150 Val 5	Leu Ser 1148 Val O Thr	Gln 1147 Ala 35 Leu Lys	1145 Ile 'O Lys Asp Glu	Lys 55 Lys Asn Arg Asn 11520
E> E> E>	2831 2833 2833 2834 2835 2836 2837 2838 2839 2840 2841	Pro Arg Glu Ser Pro 1150 Cys	Asp Val Ala Ser 1149 Gly D5 Thr	Asp Val 1147 Gly 90 Pro	Thr Leu 1146 Arg 75 His Cys Ser	Trp 1144 Ile 50 Ala Ala Gln Trp 1152	Thr 15 Gln Asp Gln Asn 1151 Glu	Asp His Gly 1149 Leu .0 Asn	Glu Leu Gly 1148 Ser 55 Lys Pro	Pro 1146 Lys 80 Ala Val	Lys 1145 Arg 55 Tyr Ile Thr Asp 1153	Val 50 Val Ile Val Asn 1151 Asn	Glu Ile Asn 1150 Val 5 Gly	Leu Ser 1148 Val 0 Thr	Gln 1147 Ala 35 Leu Lys Ser	Ile O Lys Asp Glu Glu	Lys 55 Lys Asn Arg Asn 11520 Ile
E> E> E>	2831 2833 2834 2835 2836 2837 2838 2839 2840 2841 2842	Pro Arg Glu Ser Pro 1150 Cys	Asp Val Ala Ser 1149 Gly D5 Thr	Asp Val 1147 Gly 90 Pro	Leu 1146 Arg 75 His Cys Ser Ile	Trp 1144 Ile 50 Ala Ala Gln Trp 1152 Val	Thr 15 Gln Asp Gln Asn 1151 Glu	Asp His Gly 1149 Leu .0 Asn	Glu Leu Gly 1148 Ser 5 Lys Pro Arg	Pro 1146 Lys O Ala Val Leu Lys	Lys 1145 Arg 55 Tyr Ile Thr Asp 1153 Pro	Val 50 Val Ile Val Asn 1151 Asn	Glu Ile Asn 1150 Val 5 Gly	Leu Ser 1148 Val 0 Thr	Gln 1147 Ala 35 Leu Lys Ser	Ile O Lys Asp Glu Glu	Lys 55 Lys Asn Arg Asn 11520 Ile
E> E> E>	2831 2833 2833 2834 2835 2836 2837 2838 2839 2840 2841 2842 2843	Pro Arg Glu Ser Pro 1150 Cys Thr	Asp Val Ala Ser 1149 Gly D5 Thr Asn	Asp Val 1147 Gly Pro Ile Phe	Leu 1146 Arg 75 His Cys Ser Ile 1154	Trp 1144 Ile 50 Ala Ala Gln Trp 1152 Val	Thr 15 Gln Asp Gln Asn 1151 Glu 25 Glu	Asp His Gly 1149 Leu .0 Asn	Clu Leu Gly 1148 Ser 5 Lys Pro Arg	Pro 1146 Lys 30 Ala Val Leu Lys 1154	Lys 1145 Arg 55 Tyr Ile Thr Asp 1153 Pro	Val Val Val Val Asn 1151 Asn 30 Asn	Leu Glu Ile Asn 1150 Val 5 Gly Gln	Leu Ser 1148 Val O Thr Gly	Gln 1147 Ala 35 Leu Lys Ser Gly 1155	Ille O Lys Asp Glu Glu 1153 Trp	Lys 55 Lys Asn Arg Asn 11520 Ile 85 Ser
E> E> E> E>	2831 2833 2834 2835 2836 2837 2838 2839 2840 2841 2842 2843 2844	Pro Arg Glu Ser Pro 1150 Cys Thr	Asp Val Ala Ser 1149 Gly D5 Thr Asn	Asp Val 1147 Gly O Pro Ile Phe Ala	Leu 1146 Arg 75 His Cys Ser Ile 1154 Ser	Trp 1144 Ile 50 Ala Ala Gln Trp 1152 Val	Thr 15 Gln Asp Gln Asn 1151 Glu 25 Glu	Lys Asp His Gly 1149 Leu O Asn Tyr	Glu Leu Gly 1148 Ser 5 Lys Pro Arg Lys	Pro 1146 Lys 30 Ala Val Leu Lys 1154 Arg	Lys 1145 Arg 55 Tyr Ile Thr Asp 1153 Pro	Val Val Val Val Asn 1151 Asn 30 Asn	Leu Glu Ile Asn 1150 Val S Gly Gln Lys	Leu Ser 1148 Val 0 Thr Gly Lys	Gln 1147 Ala 35 Leu Lys Ser Gly 1155 Asn	Ille O Lys Asp Glu Glu 1153 Trp	Lys 55 Lys Asn Arg Asn 11520 Ile 85 Ser
E> E> E> E>	2831 2833 2834 2835 2836 2837 2838 2839 2840 2841 2842 2843 2844	Pro Arg Glu Ser Pro 1150 Cys Thr	Asp Val Ala Ser 1149 Gly 5 Thr Asn Val	Asp Val 1147 Gly O Pro Ile Phe Ala 1155	Thr Leu 1146 Arg 75 His Cys Ser Ile 1154 Ser 55	Trp 1144 Ile 50 Ala Ala Gln Trp 1152 Val 60 Asp	Thr IS Gln Asp Gln Asn 1151 Glu S Glu Val	Asp His Gly 1149 Leu O Asn Tyr	Glu Leu Gly 1148 Ser 5 Lys Pro Arg Lys 1156	Pro 1146 Lys 30 Ala Val Leu Lys 1154 Arg	Lys 1145 Arg 55 Tyr Ile Thr Asp 1153 Pro 15	Val 50 Val Ile Val Asn 1151 Asn 30 Asn Ile	Leu Glu Ile Asn 1150 Val S Gly Gln Lys	Ser 1148 Val 0 Thr Gly Lys Ala 1156	Gln 1147 Ala 35 Leu Lys Ser Gly 1155 Asn	Asp Glu Glu 1153 Trp 60 Leu	Lys 55 Lys Asn Arg Asn 11520 Ile 55 Ser Leu
E> E> E> E> E>	2831 2833 2834 2835 2836 2837 2838 2840 2841 2842 2843 2844 2845	Pro Arg Glu Ser Pro 1150 Cys Thr	Asp Val Ala Ser 1149 Gly 5 Thr Asn Val Asn	Asp Val 1147 Gly O Pro Ile Phe Ala 1155 Asn	Thr Leu 1146 Arg 75 His Cys Ser Ile 1154 Ser 55	Trp 1144 Ile 50 Ala Ala Gln Trp 1152 Val 60 Asp	Thr SGln Asp Gln Asn 1151 Glu SGlu Val	Asp His Gly 1149 Leu 0 Asn Tyr Thr	Glu Leu Gly 1148 Ser 5 Lys Pro Arg Lys Arg	Pro 1146 Lys 30 Ala Val Leu Lys 1154 Arg	Lys 1145 Arg 55 Tyr Ile Thr Asp 1153 Pro 15	Val 50 Val Ile Val Asn 1151 Asn 30 Asn Ile Ala	Leu Glu Ile Asn 1150 Val S Gly Gln Lys	Leu Ser 1148 Val O Thr Gly Lys Ala 1156 Asn	Gln 1147 Ala 35 Leu Lys Ser Gly 1155 Asn	Asp Glu Glu 1153 Trp 60 Leu	Lys 55 Lys Asn Arg Asn 11520 Ile 55 Ser Leu
E> E> E> E>	2831 2833 2834 2835 2836 2837 2838 2840 2841 2842 2843 2844 2845 2846 2847	Pro Arg Glu Ser Pro 1150 Cys Thr Ile Ala	Asp Val Ala Ser 1149 Gly 5 Thr Asn Val Asn 1157	Asp Val 1147 Gly O Pro Ile Phe Ala 1155 Asn	Leu 1146 Arg 75 His Cys Ser Ile 1154 Ser 65 Glu	Trp 1144 11e 50 Ala Ala Gln Trp 1152 Val 60 Asp	Thr 15 Gln Asp Gln Asn 1151 Glu S Glu Val Tyr	Asp His Gly 1149 Leu O Asn Tyr Thr	Glu Leu Gly 1148 Ser 5 Lys Pro Arg Lys 1156 Arg	Pro 1146 Lys 30 Ala Val Leu Lys 1154 Arg 00 Val	Lys 1145 Arg 55 Tyr Ile Thr Asp 1153 Pro 15 Leu Cys	Val 50 Val Ile Val Asn 1151 Asn 30 Asn Ile Ala	Leu Glu Ile Asn 1150 Val S Gly Gln Lys Glu 1158	Leu Ser 1148 Val 0 Thr Gly Lys Ala 1156 Asn	Gln 1147 Ala 35 Leu Lys Ser Gly 1155 Asn 55	Ille Ille O Lys Asp Glu Ils Trp O Leu Val	Lys 55 Lys Asn Arg Asn 11520 Ile 55 Ser Leu Gly
E> E> E> E> E>	2831 2833 2834 2835 2836 2837 2838 2840 2841 2842 2843 2844 2845	Pro Arg Glu Ser Pro 1150 Cys Thr Ile Ala	Asp Val Ala Ser 1149 Gly 5 Thr Asn Val Asn 1157	Asp Val 1147 Gly O Pro Ile Phe Ala 1155 Asn	Leu 1146 Arg 75 His Cys Ser Ile 1154 Ser 65 Glu	Trp 1144 11e 50 Ala Ala Gln Trp 1152 Val 60 Asp	Thr 15 Gln Asp Gln Asn 1151 Glu S Glu Val Tyr	Asp His Gly 1149 Leu O Asn Tyr Thr	Glu Leu Gly 1148 Ser 5 Lys Pro Arg Lys 1156 Arg	Pro 1146 Lys 30 Ala Val Leu Lys 1154 Arg 00 Val	Lys 1145 Arg 55 Tyr Ile Thr Asp 1153 Pro 15 Leu Cys	Val 50 Val Ile Val Asn 1151 Asn 30 Asn Ile Ala	Leu Glu Ile Asn 1150 Val S Gly Gln Lys Glu 1158	Leu Ser 1148 Val 0 Thr Gly Lys Ala 1156 Asn	Gln 1147 Ala 35 Leu Lys Ser Gly 1155 Asn 55	Ille Ille O Lys Asp Glu Ils Trp O Leu Val	Lys 55 Lys Asn Arg Asn 11520 Ile 55 Ser Leu Gly

E>	2849	1158	35				1159	90				115	95	*			11600
	2850	Ile	Asp	Arg	Pro	Gly	Glu	Pro	Glu	Asn	Leu	His	Ile	Ala	Asp	Lys	Gly
E>	2851		-	_		1160					116:				_	116:	-
	2852	Lys	Thr	Phe	Val	Tyr	Leu	Lys	Trp	Arg	Arg	Pro	Asp	Tyr	Asp	Gly	Glv
E>	2853	1			1162			-	•	1162	_		•	-	1163	_	2
	2854	Ser	Pro	Asn			Tvr	His	Val			Ara	Leu	Lvs	Glv	Ser	Asp
E>	2855			116:			-1-		1164		9	5		1164			
	2856	Asn	Trn			Val	His	Lvs			Tle	Lvs	Glu	Thr	His	Tvr	Met
E>	2857	1100	116		••••			1169				-,0	1166			-1-	
	2858	Val			Cvs	Val	G111			Tle	Tur	Glu			Val	Gln	Thr
F>	2859			**** 9	Oyb	• • • •	116				- 1 -	116'		9	,	01	11680
D - /	2860								Asn	Trn	Val			Glui	Glu	Val	
F>	2861	цуз	ASII	Oru	Ory	116		DCI	715P	TIP	1169		1111	Oiu	Oru	1169	
E/	2862	U = 1	Luc	Glu	Aen			Ture	Pro	Val			T.e.ii	T.vs	T.e.11		
₽>	2863	Val	цуз	O.L.u	1170			БуЗ		1170		тор	пси	БуЗ	117		Ory
E/	2864	Wal.	Tou									λκα	Lou	Clu			V = 1
₽	2865	val	цец	117:		пуз	nra	Gry	1172		116	ALG	пеа	1172		gry	Val
E/	2866	7 ~~	C1.,			Dho	Dro	Clu			Trn	Thr	Tuc		-	λcn	ת ות
E	2867		1173		FIO	FILE	FLO	1173		Ата	пр	1111	1174		пуз	Азр	ALA
F>	2868				Thr	71 ~~~	cox.			17-1	T 1/0	т1 о			7 ra	ת 1 ת	7) an
P>	2869			neu.	1111	ALG	1175		Ary	vaı	пуs	117		1111	Ary	пта	11760
E/	2870			T ***C	Dho	C02			Two	712	Tuc			7 cn	C117	Cly	
10 ->		ser	ser	пуз	rne	117		1111	пуэ	нта	117		Ser	лър	СТУ	117'	
E>	2872	m,	17-1	77-1	Thr			7 00	mh ~	71.			Dha	Va I	7.1.		_
₽>	2873	т Ут	vaı	vaı	1178		1111	Don	1111	1178		261	1116	V 0 1	1179		MIG
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	2996	Ala	Ile	Ala	Ara	Thr	Ala	Val	Asn	Ile	Ser	Pro	Pro	Ser	G1u	Pro	Ser
E>	2997		127		5			1277					1278				
	2998				Thr	Ile				Asn	Val	Pro			Ile	Asp	Leu
E>	2999	_					1279					1279		_		-	12800
	3000	Ser	Val	Ala	Met	Lvs	Ser	Leu	Leu	Thr	Val	Lvs	Ala	Glv	Thr	Asn	Val
E>	3001					1280					1281			-		1281	
	3002	Cvs	Leu	Asp	Ala			Phe	Gly	Lys			Pro	Thr	Val		
E>	3003	-4			1282					1282					1283		•
	3004	Lvs	Lvs	Asp	Glv	Thr	Leu	Leu	Lys	Pro	Ala	Glu	Gly	Ile	Lys	Met	Ala
E>	3005	_	_	1283	_				1284				-	1284			
	3006	Met	Gln	Arg	Asn	Leu	Cys	Thr	Leu	Glu	Leu	Phe	Ser	Val	Asn	Arq	Lys
E>	3007		128				•	1285	55				1286			-	-
	3008	Asp	Ser	Gly	Asp	Tyr	Thr	Ile	Thr	Ala	Glu	Asn	Ser	Ser	Gly	Ser	Lys
E>	3009			-	•		128					1287			_		12880
	3010	Ser	Ala	Thr	Ile	Lys	Leu	Lys	Val	Leu	Asp	Lys	Pro	Gly	Pro	Pro	Ala
E>	3011					1288		-			1289					1289	
	3012	Ser	Val	Lys	Ile	Asn	Lys	Met	Tyr	Ser	Asp	Arg	Ala	Met	Leu	Ser	Trp
E>	3013			_	1290	00				1290	05				1291	.0	
	3014	Glu	Pro	Pro	Leu	Glu	Asp	Gly	Gly	Ser	Glu	Ile	Thr	Asn	Tyr	Ile	Val
E>	3015			1291	L5				1292	20				1292	25		
	3016	Asp	Lys	Arg	Glu	Thr	Ser	Arg	Pro	Asn	Trp	Ala	Gln	Val	Ser	Ala	Thr
E>	3017		1293					1293	35				1294				
	3018	Val	Pro	Ile	Thr	Ser			Val	Glu				Glu	Gly	His	
E>	3019						129					1295					12960
•	3020	Tyr	Gln	Phe	_		_	Ala	Glu				Gly	Val	Gly		
E>	3021					129					1297	_				1297	_
	3022		Phe				Ala	Ile				Pro	Tyr				Gly
E>	3023				1298					1298			_		1299		
	3024	_	Cys	-		Pro	Val				TTE	Thr	rys			Met	Thr
E>	3025		_	1299		_	_		1300		~1	~1	^	1300		m	a 3
	3026														тте	Thr	GTÀ
E>	3027		130:	10	C1	T	7	1301							mh sa	T	171
	3028			Leu	GIU		Arg 1303		rnr	GIN	Ата	1303		Trp	Thr	гЛг	13040
E>	3029 3030			T	Dwo				7.~~	Thr	Lou		-	ጥኮኦ	C1 11	T 011	
E>	3030	ASII	Arg	гуз		1304		Gru	Arg	1111	1305		мта	1111		1305	
E>	3032	Clu	Clu	Thr				Dha	Δrα	Wal			Tla	Δen			-
E>	3032		Gry	TIIL	1306		Gru	rne	Arg	1306		Ата	116	ASII	1307		GTÀ
E/	3034		Glv	T.170		-	Asn	Δla	Ser			Δla	Tur	Δla		-	Pro
F>	3035			130		ner	изр		130		nica	nια	ryr	1308		nop	110
E	3036				-	Δla	Pro				Pro	Lvs	Val			Thr	Thr
E>	3037		1309		110	2114	110	1309		1110	110	Lyo	1310	_	7.00	1111	1112
			100.			_				Glv	Lvs	Pro		-	Zen	Glv	Glv
		Ara	Ser	Ser	Val	Ser	1.611										
E>	3038			Ser	Val									ıyı	дор		
E>	3038 3039	1310	0 5				131:	10				1311	L 5				13120
	3038 3039 3040	1310	0 5				131: Tyr	10		Glu	Val	131 Lys	L 5				13120 Asp
	3038 3039 3040 3041	131 0 Ser	D 5 Pro	Ile	Ile	Gly 131 2	131: Tyr 25	Leu	Val	Glu	Val 131 3	1311 Lys 30	L 5 Arg	Ala	Asp	Ser 1313	13120 Asp 35
E>	3038 3039 3040	131 0 Ser	D 5 Pro	Ile	Ile	Gly 1312 Cys	131: Tyr 25	Leu	Val	Glu	Val 1313 Asn	1311 Lys 30	L 5 Arg	Ala	Asp	Ser 131 3 Arg	13120 Asp 35
E>	3038 3039 3040 3041 3042	Ser Asn	Pro Trp	Ile Val	Ile Arg	Gly 1312 Cys	131: Tyr 25 Asn	Leu Leu	Val Pro	Glu Gln 1314	Val 1313 Asn 15	1311 Lys 30 Leu	Arg Gln	Ala Lys	Asp Thr	Ser 1313 Arg	13120 Asp 35 Phe

E>	3045			131	55				131	50				131	65		
	3046	Ala	Val	Asn	Lvs	Ile	Glv	Tvr			Pro	Ser	Asp			Asp	Lvs
E>	3047		131					131				,	131			1101	-10
	3048				T.VS	Asn				Pro	Pro	Glu			Hic	Asn	Δla
E>	3049			~ ~ ~	-10		131					131	-	014	******	1101	13200
~ ′	3050			Ara	Lus				T.e.11	Δra	Δla			Thr	Mot	Δra	
E>	3051	1101	10 u	*****	Dyo	1320		***	псα	1119	132		Val	1111	1100	132:	
	3052	Tur	Va 1	Pro	Val			Δra	Pro	Pro			Tla	Thr	Trn		
F>	3053	- y -	٧۵١	110	1322		ОТУ	my	110	1322		цуз	116	1111	132:		цуз
	3054	Dro	Nan	Val			7\ ~~	7 cn	Λrα			Ton	7) cm	T10			The
F>	3055	110	HOII	132		пец	Arg	изр	1324		GIY	цец	voh	132		Ser	TIIT
B>	3056	Acn	Dho			Dho	Lou	Λνα			λen	17 n 1	λαρ			7 an	777 -
F>	3057		132		1111	rne	пец	1325		GIU	ASII	vaı	132	-	ıyı	Asp	ATG
E>	3058				Tla	Lou	Thr		-	7 cn	802	Cvc			T ***	C1,,	Tirra
E>	3059		EE E	ı yı	116	пец	132		Gru	USII	Det	132'		тур	nys	GIU	13280
B/	3060								7 en	Thr	Dro			Dro	T10	Λan	
F>	3061	1111	116	Val	vaı	1328		Бец	лър	1111	132	_	FIU	FIO	116	1329	
B /	3062	Thr	Val	Luc	Glu			Luc	Aen	Sor			Wal	Thr	Тто		
E>	3063	1111	Val	цуз	1330			цуз				ıyı	vaı	1111	133:		FIO
	3064	Pro	Tle	Tle								Asn	Tur	Val			T.vs
E>	3065	110	110	133:		O _T	019	DCI	1332		110	11011	- y -	1332		0111	Lys
	3066	Δra	Asn			Δra	1.vs	Ser			Thr	Val	Thr			Cve	Ser
E>	3067				014	**** 9	_,	1333		501	1 *114	141	1334		OIU	Cys	DCI
- /	3068				Phe	Ara	Val			Leu	Glu	G] 11			Ser	Tur	Phe
E>	3069				2	_	1335				Q1, u	133		4,5	001	- 1 -	13360
	3070			Val	Phe				C1,1	m	C1			7 an	Dro	C1 v	
F>								ASIL		I V I	L ₇ I V	116	(r I V				
	3071		•					ASII	GIU	TYL			сту	ASP	FIO		
E>	3071 3072					1336	55				133	70				133	75
	3072				Ala	133 6 Val	55			Gln	133' Thr	70			Val	133 ' Val	75
	3072 3073	Thr	Arg	Asp	Ala 1338	1336 Val 30	55 Lys	Ala	Ser	Gln 133 8	133' Thr 35	70 Pro	Gly	Pro	Val 133 9	133 Val 90	75 Asp
E>	3072 3073 3074	Thr Leu	Arg	Asp Val	Ala 133 8 Arg	1336 Val 30 Ser	55 Lys Val	Ala Ser	Ser Lys	Gln 1338 Ser	133' Thr 35	70 Pro Cys	Gly	Pro Ile	Val 1339 Gly	133 Val 90	75 Asp
	3072 3073 3074 3075	Thr Leu	Arg Lys	Asp Val 133 9	Ala 133 8 Arg 95	1330 Val 30 Ser	55 Lys Val	Ala Ser	Ser Lys	Gln 1338 Ser	133' Thr 35 Ser	70 Pro Cys	Gly Ser	Pro	Val 1339 Gly 05	133' Val 90 Trp	75 Asp Lys
E>	3072 3073 3074	Thr Leu	Arg Lys	Asp Val 1339 His	Ala 133 8 Arg 95	1330 Val 30 Ser	55 Lys Val	Ala Ser	Ser Lys 1340 Ser	Gln 1338 Ser	133' Thr 35 Ser	70 Pro Cys	Gly Ser	Pro Ile 1340 Tyr	Val 1339 Gly 05	133' Val 90 Trp	75 Asp Lys
E>	3072 3073 3074 3075 3076 3077	Thr Leu Lys	Arg Lys Pro 134:	Asp Val 1339 His	Ala 1338 Arg 95 Ser	Val 30 Ser Asp	Lys Val Gly	Ala Ser Gly 1341	Ser Lys 134 (Ser	Gln 1338 Ser OO Arg	133° Thr 35 Ser	70 Pro Cys Ile	Gly Ser Gly	Pro Ile 1340 Tyr	Val 133 9 Gly 05 Val	133' Val 90 Trp Val	Asp Lys Asp
E> E>	3072 3073 3074 3075 3076	Thr Leu Lys Phe	Arg Lys Pro 134: Leu	Asp Val 1339 His	Ala 1338 Arg 95 Ser	Val 30 Ser Asp	Lys Val Gly	Ala Ser Gly 1341 Lys	Ser Lys 134(Ser L 5 Trp	Gln 1338 Ser OO Arg	133° Thr 35 Ser Ile Arg	70 Pro Cys Ile	Gly Ser Gly 1342 Met	Pro Ile 1340 Tyr	Val 1339 Gly D5 Val Ser	133' Val 90 Trp Val	Asp Lys Asp
E> E>	3072 3073 3074 3075 3076 3077 3078 3079	Thr Leu Lys Phe 134:	Arg Lys Pro 134: Leu 25	Asp Val 1339 His 10	Ala 1338 Arg 95 Ser Glu	Val So Ser Asp	Lys Val Gly Asn	Ala Ser Gly 1341 Lys	Lys 1340 Ser L5	Gln 1338 Ser OO Arg	133° Thr 35 Ser Ile	Pro Cys Ile Val 1343	Gly Ser Gly 1342 Met	Pro Ile 1340 Tyr 20 Lys	Val 1339 Gly D5 Val Ser	Val Val Trp Val	Asp Lys Asp Ser 13440
E> E>	3072 3073 3074 3075 3076 3077 3078 3079 3080	Thr Leu Lys Phe 134:	Arg Lys Pro 134: Leu 25	Asp Val 1339 His 10	Ala 1338 Arg 95 Ser Glu	Val So Ser Asp	Lys Val Gly Asn 1343	Ala Ser Gly 1341 Lys	Lys 1340 Ser L5	Gln 1338 Ser OO Arg	133° Thr 35 Ser Ile	Pro Cys Ile Val 1343 Gly	Gly Ser Gly 1342 Met	Pro Ile 1340 Tyr 20 Lys	Val 1339 Gly D5 Val Ser	Val Val Trp Val	Asp Lys Asp Ser 13440 Phe
E> E> E>	3072 3073 3074 3075 3076 3077 3078 3079 3080 3081	Thr Leu Lys Phe 1342 Leu	Lys Pro 134: Leu 25 Gln	Asp Val 1339 His 10 Thr	Ala 1338 Arg 95 Ser Glu	Val 30 Ser Asp Glu Ala 134	Lys Val Gly Asn Lys Lys	Ala Ser Gly 1341 Lys 30 Asp	Lys 1340 Ser 5 Trp	Gln 1338 Ser 00 Arg Gln	Thr 35 Ser Ile Arg Glu 134	Pro Cys Ile Val 1343 Gly	Gly Ser Gly 1342 Met 35 Lys	Pro Ile 1340 Tyr 20 Lys Glu	Val 1339 Gly D5 Val Ser	Val Val Val Leu Thr	Asp Lys Asp Ser 13440 Phe
E> E> E>	3072 3073 3074 3075 3076 3077 3078 3079 3080 3081 3082	Thr Leu Lys Phe 1342 Leu	Lys Pro 134: Leu 25 Gln	Asp Val 1339 His 10 Thr	Ala 1338 Arg 95 Ser Glu	Val 30 Ser Asp Glu Ala 1344 Glu	Lys Val Gly Asn Lys Lys	Ala Ser Gly 1341 Lys 30 Asp	Lys 1340 Ser 5 Trp	Gln 1338 Ser 00 Arg Gln	Thr 35 Ser Ile Arg Glu 1345 Glu	Pro Cys Ile Val 1343 Gly	Gly Ser Gly 1342 Met 35 Lys	Pro Ile 1340 Tyr 20 Lys Glu	Val 1339 Gly D5 Val Ser	Val Val Val Val Leu Thr 1345	Asp Lys Asp Ser 13440 Phe
E> E> E> E>	3072 3073 3074 3075 3076 3077 3078 3079 3080 3081 3082 3083	Thr- Leu Lys Phe 1342 Leu Arg	Lys Pro 134: Leu 25 Gln Val	Val 1339 His 10 Thr Tyr	Ala 1338 Arg 95 Ser Glu Ser Ala 1346	Val Val 30 Ser Asp Glu Ala 1344 Glu 50	Lys Val Gly Asn 1343 Lys Asn Asn	Ala Ser Gly 1341 Lys 30 Asp Glu	Lys 1340 Ser 5 Trp Leu Asn	Gln 1338 Ser 00 Arg Gln Thr	Thr 35 Ser Ile Arg Glu 1349 Glu	Pro Cys Ile Val 1343 Gly 60 Gly	Gly Ser Gly 1342 Met 35 Lys	Pro Ile 1340 Tyr 20 Lys Glu Pro	Val 1339 Gly D5 Val Ser Tyr Ser 1347	Val Val Val Val Leu Thr 1345 Glu	Asp Lys Asp Ser 13440 Phe 55
E> E> E> E>	3072 3073 3074 3075 3076 3077 3078 3079 3080 3081 3082 3083 3084	Thr- Leu Lys Phe 1342 Leu Arg	Lys Pro 134: Leu 25 Gln Val	Val 1339 His 10 Thr Tyr	Ala 1338 Arg 95 Ser Glu Ser Ala 1346 Ala	Val Val 30 Ser Asp Glu Ala 1344 Glu 50	Lys Val Gly Asn 1343 Lys Asn Asn	Ala Ser Gly 1341 Lys 30 Asp Glu	Lys 1340 Ser 5 Trp Leu Asn	Gln 1338 Ser 00 Arg Gln Thr Gly 1346 Val	Thr 35 Ser Ile Arg Glu 1349 Glu	Pro Cys Ile Val 1343 Gly 60 Gly	Gly Ser Gly 1342 Met 35 Lys	Pro Ile 1340 Tyr 20 Lys Glu Pro	Val 1339 Gly D5 Val Ser Tyr Ser 1347 Asp	Val Val Val Val Leu Thr 1345 Glu	Asp Lys Asp Ser 13440 Phe 55
E> E> E> E>	3072 3073 3074 3075 3076 3077 3078 3080 3081 3082 3083 3084 3085	Thr Leu Lys Phe 1342 Leu Arg	Lys Pro 134: Leu 25 Gln Val	Asp Val 1339 His 10 Thr Tyr Ser Val 134	Ala 1338 Arg 95 Ser Glu Ser Ala 1346 Ala	Value Ser Asp Glu Ala 1344 Glu Arg	Lys Val Gly Asn 1343 Lys Asn Asp	Ala Ser Gly 1341 Lys 30 Asp Glu Asp	Lys 1340 Ser 5 Trp Leu Asn Val	Gln 1338 Ser 00 Arg Gln Thr Gly 1346 Val	133 Thr 35 Ser Ile Arg Glu 1345 Glu 55	Pro Cys Ile Val 1343 Gly 60 Gly Pro	Gly Ser Gly 1342 Met 35 Lys Thr	Pro Ile 1340 Tyr 20 Lys Glu Pro Leu 1348	Val 1339 Gly D5 Val Ser Tyr Ser 1347 Asp	Val Val Val Val Leu Thr 1345 Glu 70 Leu	Asp Lys Asp Ser 13440 Phe 55 Ile Lys
E> E> E> E> E>	3072 3073 3074 3075 3076 3077 3078 3079 3080 3081 3082 3083 3084	ThreLeu Lys Phe 1342 Leu Arg Thr	Lys Pro 134: Leu 25 Gln Val	Asp Val 1339 His 10 Thr Tyr Ser Val 134	Ala 1338 Arg 95 Ser Glu Ser Ala 1346 Ala	Value	Lys Val Gly Asn 1343 Lys Asn Asp Cys	Ala Ser Gly 1341 Lys 30 Asp Glu Asp	Lys 1340 Ser 5 Trp Leu Asn Val 1348 Leu	Gln 1338 Ser 00 Arg Gln Thr Gly 1346 Val	133 Thr 35 Ser Ile Arg Glu 1345 Glu 55	Pro Cys Ile Val 1343 Gly 60 Gly Pro	Gly Ser Gly 1342 Met 35 Lys Thr	Pro Ile 1340 Tyr 20 Lys Glu Pro Leu 1348 Ser	Val 1339 Gly D5 Val Ser Tyr Ser 1347 Asp	Val Val Val Val Leu Thr 1345 Glu 70 Leu	Asp Lys Asp Ser 13440 Phe 55 Ile Lys
E> E> E> E> E>	3072 3073 3074 3075 3076 3077 3078 3080 3081 3082 3083 3084 3085 3086 3087	ThreLeu Lys Phe 1342 Leu Arg Thr	Arg Lys Pro 134: Leu 25 Gln Val Val Leu 134:	Asp Val 1339 His 10 Thr Tyr Ser Val 134' Pro	Ala 1338 Arg 95 Ser Glu Ser Ala 1346 Ala 75	Value	Lys Val Gly Asn 1343 Lys Asn Asp Cys	Ala Ser Gly 1341 Lys 30 Asp Glu Asp Tyr 1345	Leu Asn Val Leu Leu 5	Gln 1338 Ser 00 Arg Gln Thr Gly 1346 Val 80 Ala	Thr So Ser Ile Arg Glu 134! Glu Ala Lys	Pro Cys Ile Val 1343 Gly 60 Gly Pro Glu	Gly Ser Gly 1342 Met 35 Lys Thr Asp Asn 1350	Pro Ile 1340 Tyr 20 Lys Glu Pro Leu 1348 Ser	Val 1339 Gly D5 Val Ser Tyr Ser 1347 Asp	Value Thr 1345 Glu Phe	Asp Lys Asp Ser 13440 Phe 55 Ile Lys Arg
E> E> E> E> E> E>	3072 3073 3074 3075 3076 3077 3078 3080 3081 3082 3083 3084 3085 3086	ThreLeu Lys Phe 1342 Leu Arg Thr Gly Leu	Arg Lys Pro 134: Leu 25 Gln Val Val Leu 134: Lys	Asp Val 1339 His 10 Thr Tyr Ser Val 134' Pro	Ala 1338 Arg 95 Ser Glu Ser Ala 1346 Ala 75	Value	Lys Val Gly Asn 1343 Lys Asn Asp Cys	Ala Ser Gly 1341 Lys 30 Asp Glu Asp Tyr 1349 Gly	Leu Asn Val Leu Leu 5	Gln 1338 Ser 00 Arg Gln Thr Gly 1346 Val 80 Ala	Thr So Ser Ile Arg Glu 134! Glu Ala Lys	Pro Cys Ile Val 1343 Gly 60 Gly Pro Glu	Gly Ser Gly 1342 Met 35 Lys Thr Asp Asn 1350 Ser	Pro Ile 1340 Tyr 20 Lys Glu Pro Leu 1348 Ser	Val 1339 Gly D5 Val Ser Tyr Ser 1347 Asp	Value Thr 1345 Glu Phe	Asp Lys Asp Ser 13440 Phe 55 Ile Lys Arg
E> E> E> E> E> E>	3072 3073 3074 3075 3076 3077 3078 3079 3080 3081 3082 3083 3084 3085 3086 3087 3088 3088	ThreLeu Lys Phe 1342 Leu Arg Thr Gly Leu 1356	Arg Lys Pro 134: Leu 25 Gln Val Val Leu 134: Lys	Asp Val 1339 His 10 Thr Tyr Ser Val 134 Pro 90	Ala 1338 Arg 95 Ser Glu Ser Ala 1346 Ala 75 Asp	Val Val So Ser Asp Glu Ala 1346 Glu 50 Arg Leu	Lys Val Gly Asn 1343 Lys Asn Asp Cys Lys 1351	Ala Ser Gly 1341 Lys 30 Asp Glu Asp Tyr 1349 Gly	Lys 1340 Ser 5 Trp Leu Asn Val 1346 Leu 5	Gln 1338 Ser 00 Arg Gln Thr Gly 1346 Val 30 Ala	Thr S5 Ser Ile Arg Glu 1349 Glu 65 Ala Lys Ala	Pro Cys Ile Val 1343 Gly Gly Pro Glu Pro 1353	Gly Ser Gly 1342 Met 35 Lys Thr Asp Asn 1350 Ser	Pro Ile 1340 Tyr 20 Lys Glu Pro Leu 1348 Ser 00	Val 1339 Gly D5 Val Ser Tyr Ser 1347 Asp 35 Asn	Val Val Val Val Leu Thr 1345 Glu O Leu Phe	Asp Lys Asp Ser 13440 Phe 55 Ile Lys Arg Lys 13520
E> E> E> E> E> E>	3072 3073 3074 3075 3076 3077 3078 3080 3081 3082 3083 3084 3085 3086 3087 3088 3089 3090	ThreLeu Lys Phe 1342 Leu Arg Thr Gly Leu 1356	Arg Lys Pro 134: Leu 25 Gln Val Val Leu 134: Lys	Asp Val 1339 His 10 Thr Tyr Ser Val 134 Pro 90	Ala 1338 Arg 95 Ser Glu Ser Ala 1346 Ala 75 Asp	Val Val So Ser Asp Glu Ala 1346 Glu 50 Arg Leu	Lys Val Gly Asn 1343 Lys S Asn Asp Cys Lys 1351 Leu	Ala Ser Gly 1341 Lys 30 Asp Glu Asp Tyr 1349 Gly	Lys 1340 Ser 5 Trp Leu Asn Val 1346 Leu 5	Gln 1338 Ser 00 Arg Gln Thr Gly 1346 Val 30 Ala	Thr S5 Ser Ile Arg Glu 1349 Glu 65 Ala Lys Ala	Pro Cys Ile Val 1343 Gly Gly Pro Glu Pro 1353 Arg	Gly Ser Gly 1342 Met 35 Lys Thr Asp Asn 1350 Ser	Pro Ile 1340 Tyr 20 Lys Glu Pro Leu 1348 Ser 00	Val 1339 Gly D5 Val Ser Tyr Ser 1347 Asp 35 Asn	Val Val Val Val Leu Thr 1345 Glu O Leu Phe	Asp Lys Asp Ser 13440 Phe 55 Ile Lys Arg Lys 13520 Ser
E> E> E> E> E> E>	3072 3073 3074 3075 3076 3077 3078 3080 3081 3082 3083 3084 3085 3086 3087 3088 3089 3090	ThreLeu Lys Phe 1342 Leu Arg Thr Gly Leu 1356 Lys	Lys Pro 134: Leu 25 Gln Val Val Leu 134: Lys Gly	Asp Val 1339 His 10 Thr Tyr Ser Val 134 Pro 10 Ile Glu	Ala 1338 Arg 95 Ser Glu Ser Ala 1346 Ala 75 Asp	Value	Lys Val Gly Asn 1343 Lys S Asn Asp Cys Lys Lys Lys Lys	Ala Ser Gly 1341 Lys 30 Asp Glu Asp Tyr 1349 Gly O Ala	Lys 1340 Ser 15 Trp Leu Asn Val 1346 Leu 5 Lys Thr	Gln 1338 Ser 00 Arg Gln Thr Gly 1346 Val 30 Ala Pro Asp	Thr 35 Ser Ile Arg Glu 1345 Glu 65 Ala Lys Ala Thr 135	Pro Cys Ile Val 1343 Gly Gly Pro Glu Pro 1353 Arg	Gly Ser Gly 1342 Met 35 Lys Thr Asp Asn 1350 Ser 15	Pro Ile 1340 Tyr 20 Lys Glu Pro Leu 1348 Ser 00 Val	Val 1339 Gly D5 Val Ser Tyr Ser 1347 Asp B5 Asn Ser Val	Value Value Thr 1345 Glue Phe Glue 1353	Asp Lys Asp Ser 13440 Phe 55 Ile Lys Arg Lys 13520 Ser
E> E> E> E> E> E>	3072 3073 3074 3075 3076 3077 3078 3080 3081 3082 3083 3084 3085 3086 3087 3088 3089 3090 3091 3092	ThreLeu Lys Phe 1342 Leu Arg Thr Gly Leu 1356 Lys	Lys Pro 134: Leu 25 Gln Val Val Leu 134: Lys Gly	Asp Val 1339 His 10 Thr Tyr Ser Val 134 Pro 10 Ile Glu	Ala 1338 Arg 95 Ser Glu Ser Ala 1346 Ala 75 Asp	Value	Lys Val Gly Asn 1343 Lys S Asn Asp Cys Lys Lys Lys Lys	Ala Ser Gly 1341 Lys 30 Asp Glu Asp Tyr 1349 Gly O Ala	Lys 1340 Ser 15 Trp Leu Asn Val 1346 Leu 5 Lys Thr	Gln 1338 Ser 00 Arg Gln Thr Gly 1346 Val 30 Ala Pro Asp	Thr S5 Ser Ile Arg Glu 1345 Glu 65 Ala Lys Ala Thr 1353 Tyr	Pro Cys Ile Val 1343 Gly Gly Pro Glu Pro 1353 Arg	Gly Ser Gly 1342 Met 35 Lys Thr Asp Asn 1350 Ser 15	Pro Ile 1340 Tyr 20 Lys Glu Pro Leu 1348 Ser 00 Val	Val 1339 Gly D5 Val Ser Tyr Ser 1347 Asp B5 Asn Ser Val	Value Thr 1345 Glu Phe Glu 1353 Ser	Asp Lys Asp Ser 13440 Phe 55 Ile Lys Arg Lys 13520 Ser

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508A

DATE: 05/30/2001
TIME: 11:49:02

E>	3094		Gly		Tyr 55							Val		Gly 1356		Lys	Glu
															-	Thr	Gly
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	3098	Pro	Tle	Lvs	Phe	Asp				Ala	Glu				Leu	Lvs	Trp
E>	3099		35	2,0			1359					1359			200	~,0	13600
-	3100		Pro	Pro	Lvs	Asp						Tle	Thr	Asn	Tvr	Tle	
E>						1360		1	1		1361					1361	
	3102	Glu	Lvs	Ara			_	Asn	Asn				Thr	Cvs			
E>	3103			9	1362										1363		
- 1	3104	Val	Gln	Lvs			Phe	Ara									Glu
E>				1363					1364	10	5			1364			
	3106	Tvr								Asn	Lvs	Tvr	Glv			Glu	Glv
E>	3107							1365			-1-		1366		1		1
	3108									Ara	His				Val	Pro	Asp
E>	3109		55 55				1367	70									13680
	3110		Pro	Pro	Pro	Pro	Asn	Ile						qaA	Ser	Val	Ser
E>						1368	35				1369	90 Í		-		1369	
	3112	Leu	Thr	Trp	Thr	asA							Ser	Pro	Ile	Thr	Gly
E>	3113				1370			•		1370		•			1371		-
	3114	Tvr	His	Leu	Glu	Phe	Lys	Glu	Arq	Asn	Ser	Leu	Leu	Trp	Lys	Arq	Ala
E>	3115			1371			-		1372					1372		,	
	3116	Asn	Lys	Thr	Pro	Ile	Arg	Met	Arg	Asp	Phe	Lys	Val	Thr	Gly	Leu	Thr
E>	3117							1373		~			1374		_		
•	3118	Glu	Gly	Leu	Glu	Tyr	Glu	Phe	Arg	Val	Met	Ala	Ile	Asn	Leu	Ala	Gly
E>	3119						1375	50	5			1375					13760
	3120						Leu	Pro	Ser	Glu	Pro	Val	Val	Ala	Leu	Asp	Pro
E>			•	•		1376					1377					1377	
	3122	Ile	Asp	Pro	Pro	Gly	Lys	Pro	Glu	Val	Ile	Asn	Ile	Thr	Arg	Asn	Ser
E>	3123		_		1378	30	_			1378					1379		
	3124	Val	Thr	Leu	Ile	Trp	Thr	Glu	Pro	Lys	Tyr	Asp	Gly	Gly	His	Lys	Leu
E>	3125			1379	95				1380	0				1380)5		
	3126	Thr	Gly	Tyr	Ile	Val	Glu	Lys	Arg	Asp	Leu	Pro	Ser	Lys	Ser	Trp	Met
E>	3127		1383						L5				1382				
	3128	Lys	Ala						Pro	Glu	Cys	Ala	Phe	Thr	Val	Thr	Asp
E>	3129							-				1383					13840
	3130	Leu	Val	Glu	Gly		Lys	Tyr	Glu	Phe			Arg	Ala	Lys		
E>						1384					1385		_			1385	
	3132	Ala	Gly	Ala			Ala					Thr	Glu	Thr			Cys
E>	3133				1386										1387		
	3134					Glu	Ala	Pro			Val	Leu	Asp			Ile	Lys
E>	3135			138					1388					1388	-		
	3136	_	_		Thr	Ile	_		_	Asp	Thr	Ile			Asn	Ala	lle
E>	3137		1389			_		1389		-	^	_	1390		-	~ 7	03.
	3138						Pro	Leu	Pro	Lys	Ser			Ser	Lys	Ala	
E>	3139				_						~ 3	1391			m)		13920
_	3140	Lys	Asp	Ile	Arg			Asp	TTe	Thr			Thr	Ser	Thr		
E>	3141					1392		_	_		1393		_	_		1393	
	24.0	~	~		-												
	3142	Ser	Ser	Met	Leu	Thr	Ile	Lys	Tyr	Ala	Thr	Arg	Lys	Asp	Ala	Gly	Glu

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508A

DATE: 05/30/2001
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Output Set: C:\CRF3\05302001\1759508A.raw

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	3192		Pro														Ile
E>	3193		_		1434										1435		_
_	3194	GIu				GLy	Lys				Phe	Val				Val	Leu
E>	3195	_		1435		_			1436		_	_		1436			_
	3196	_		Pro	GLY	Pro	Val								He	Thr	Lys
E>	3197							1437					1436				
	3198	_							Asp	Leu				Asp	Gly	Gly	
E>	3199						1439					1439					14400
	3200						Ile	Val	Glu	Lys			Ala	Thr	Arg		
E>	3201					1440					1441					1441	
	3202						Thr	ràs				Cys	Thr				Thr
E>	3203									1442					1443		
	3204		Leu		Glu	Gly	Cys	Glu		Phe	Phe	Arg	Val			Glu	Asn
E>	3205		_	1443			_		1444			_,		1444		_	
	3206	GLu	Tyr	GLy	Ile	Gly	Glu	Pro	Thr	Glu	Thr				Val	Lys	Ala
E>	3207			50						_	_		1446		_		
	3208			Ala	Pro	Ser								Met	Asp	lle	
E>	3209					_	1447		_			1447			_	~ 1	14480
	3210	ьуs											ьуs	His			
E>	3211	_		~ 1					-1		1449		7	.		1449	
	3212		rys	TTE	inr	GTA	Tyr	vaı	TTE								Asp
E>	3213		m	m1				mb				T			1451		7
	3214					тте	Thr		1452	тĀS	ст	ьeu	GIU	1452		val	Arg
E>	3215 3216			1451		C1	C1.,			np.~	Dho	C1 n	17-1	_		17-1	n an
E	3210 3217	ASII	1453		GIU			1453					1454		AId	var	ASII
E>														40			
	7778	Sar	7/12	Clar	Dra	Sar		Pro	Ara	G111	Sar	Dra	Pro	I e V	Tla	V-1	Luc
F>			Ala	Gly	Arg	Ser	Ala	Pro	Arg	Glu	Ser			Val	Ile		
E>	3219	1454	15				Ala 1455	50				1455	55				14560
	3219 3220	145 4 Glu	15		Met	Leu	Ala 145 5 Pro	50			Leu	145 5 Arg	5 5 Gly	Ile		Gln	14560 Lys
	3219 3220 3221	145 4 Glu	15 Gln	Thr	Met	Leu 145 6	Ala 145 5 Pro 55	Glu	Leu	Asp	Leu 145 7	145 5 Arg 70	55 Gly	Ile	Tyr	Gln 145 7	14560 Lys 7 5
E>	3219 3220 3221 3222	145 4 Glu	15 Gln	Thr Ile	Met Ala	Leu 145 Lys	Ala 1455 Pro 55 Ala	Glu Gly	Leu Asp	Asp Asn	Leu 145 Ile	1455 Arg 70 Lys	Gly Val	Ile Glu	Tyr Ile	Gln 145 7 Pro	14560 Lys 7 5
E>	3219 3220 3221 3222 3223	Glu Leu	15 Gln Val	Thr Ile	Met Ala 145 8	Leu 145 6 Lys 30	Ala 1455 Pro 55 Ala	Glu Gly	Leu Asp	Asp Asn 145 8	Leu 145 Ile 35	145 5 Arg 70 Lys	5 5 Gly Val	Ile Glu	Tyr Ile 1459	Gln 1457 Pro	14560 Lys 75 Val
E>	3219 3220 3221 3222	Glu Leu Leu	15 Gln Val	Thr Ile	Met Ala 1458 Pro	Leu 145 6 Lys 30	Ala 1455 Pro 55 Ala	Glu Gly Thr	Leu Asp	Asp Asn 1458 Thr	Leu 145 Ile 35	145 5 Arg 70 Lys	5 5 Gly Val	Ile Glu	Tyr Ile 1459 Asp	Gln 1457 Pro	14560 Lys 75 Val
E>	3219 3220 3221 3222 3223 3224 3225	1454 Glu Leu Leu	Gln Val Gly	Thr Ile Arg	Met Ala 1458 Pro	Leu 145 6 Lys 0 Lys	Ala 1455 Pro 55 Ala Pro	Glu Gly Thr	Leu Asp Val 146 0	Asp Asn 1458 Thr	Leu 1457 Ile 35 Trp	1455 Arg 70 Lys Lys	55 Gly Val Lys	Ile Glu Gly 1460	Tyr Ile 145 9 Asp)5	Gln 1457 Pro 90 Gln	14560 Lys 75 Val
E> E>	3219 3220 3221 3222 3223 3224 3225 3226 3227	Glu Leu Leu Leu	Gln Val Gly Lys 146	Thr Ile Arg 1459 Gln 10	Met Ala 1458 Pro 5 Thr	Leu 1456 Lys 30 Lys Gln	Ala 1455 Pro 55 Ala Pro Arg	Glu Gly Thr Val 1461	Leu Asp Val 1460 Asn	Asp Asn 1458 Thr 00 Phe	Leu 1457 Ile 35 Trp Glu	Arg 70 Lys Lys Thr	Gly Val Lys Thr 1462	Ile Glu Gly 1460 Ala	Tyr Ile 1459 Asp 5 Thr	Gln 1457 Pro 90 Gln Ser	14560 Lys 75 Val Ile
E> E>	3219 3220 3221 3222 3223 3224 3225 3226 3227	Glu Leu Leu Leu	Gln Val Gly Lys 146	Thr Ile Arg 1459 Gln 10	Met Ala 1458 Pro 5 Thr	Leu 1456 Lys 30 Lys Gln Asn	Ala 1455 Pro 55 Ala Pro Arg Glu	Glu Gly Thr Val 1461	Leu Asp Val 1460 Asn Val	Asp Asn 1458 Thr 00 Phe Arg	Leu 1457 Ile 35 Trp Glu Ser	Arg 70 Lys Lys Thr	Gly Val Lys Thr 1462	Ile Glu Gly 1460 Ala	Tyr Ile 1459 Asp 5 Thr	Gln 1457 Pro 90 Gln Ser	14560 Lys 75 Val Ile
E> E>	3219 3220 3221 3222 3223 3224 3225 3226 3227 3228 3229	Leu Leu Leu Leu Leu 11e 1462	Gln Val Gly Lys 1463 Leu 25	Thr Ile Arg 1459 Gln 10 Asn	Met Ala 1458 Pro 5 Thr	Leu 1456 Lys 30 Lys Gln Asn	Ala 1455 Pro 55 Ala Pro Arg Glu 1463	Glu Gly Thr Val 1461 Cys	Leu Asp Val 1460 Asn S	Asp Asn 1458 Thr 00 Phe Arg	Leu 145; Ile 35 Trp Glu Ser	Arg 70 Lys Lys Thr Asp	Gly Val Lys Thr 1462 Ser	Glu Gly 1460 Ala 20 Gly	Ile 1459 Asp)5 Thr	Gln 1457 Pro 90 Gln Ser	14560 Lys 75 Val Ile Thr Pro 14640
E> E>	3219 3221 3222 3223 3224 3225 3226 3227 3228	Leu Leu Leu Leu Leu 11e 1462	Gln Val Gly Lys 1463 Leu 25	Thr Ile Arg 1459 Gln 10 Asn	Met Ala 1458 Pro 5 Thr	Leu 1456 Lys 30 Lys Gln Asn	Ala 1455 Pro 55 Ala Pro Arg Glu 1463	Glu Gly Thr Val 1461 Cys	Leu Asp Val 1460 Asn IS	Asp Asn 1458 Thr 00 Phe Arg	Leu 145; Ile 35 Trp Glu Ser	Arg 70 Lys Lys Thr Asp 1463 Gly	Gly Val Lys Thr 1462 Ser 35 Asp	Glu Gly 1460 Ala 20 Gly Val	Ile 1459 Asp 5 Thr Pro	Gln 1457 Pro 90 Gln Ser	14560 Lys 75 Val Ile Thr Pro 14640
E> E> E> E>	3219 3220 3221 3222 3223 3224 3225 3226 3227 3228 3229 3230 3231	Leu Leu Leu Leu Ile 1462 Leu	Gln Val Gly Lys 1461 Leu 5	Thr Ile Arg 1459 Gln 10 Asn Ala	Met Ala 1458 Pro Thr Ile Arg	Leu 1456 Lys 0 Lys Gln Asn Asn	Ala 1455 Pro 55 Ala Pro Arg Glu 1463 Ile	Glu Gly Thr Val 1461 Cys Val	Leu Asp Val 1460 Asn S Val Gly	Asp Asn 1458 Thr OO Phe Arg	Leu 1457 Ile 35 Trp Glu Ser Val 1465	Arg 70 Lys Lys Thr Asp 1463 Gly	Gly Val Lys Thr 1462 Ser 35 Asp	Glu Gly 1460 Ala 20 Gly Val	Ile 1459 Asp 5 Thr Pro	Gln 1457 Pro 00 Gln Ser Tyr Thr 1465	14560 Lys 75 Val Ile Thr Pro 14640 Ile
E> E> E> E>	3219 3220 3221 3222 3223 3224 3225 3226 3227 3228 3229 3230 3231	Leu Leu Leu Leu Ile 1462 Leu	Gln Val Gly Lys 1461 Leu 5	Thr Ile Arg 1459 Gln 10 Asn Ala	Met Ala 1458 Pro Thr Ile Arg	Leu 1456 Lys 0 Lys Gln Asn Asn	Ala 1455 Pro 55 Ala Pro Arg Glu 1463 Ile	Glu Gly Thr Val 1461 Cys Val	Leu Asp Val 1460 Asn S Val Gly	Asp Asn 1458 Thr OO Phe Arg	Leu 1457 Ile 35 Trp Glu Ser Val 1465	Arg 70 Lys Lys Thr Asp 1463 Gly	Gly Val Lys Thr 1462 Ser 35 Asp	Glu Gly 1460 Ala 20 Gly Val	Ile 1459 Asp 5 Thr Pro	Gln 1457 Pro 00 Gln Ser Tyr Thr 1465	14560 Lys 75 Val Ile Thr Pro 14640 Ile
E> E> E> E> E>	3219 3220 3221 3222 3223 3224 3225 3226 3227 3228 3229 3230	Leu Leu Leu Leu Ile 1462 Leu	Gln Val Gly Lys 1461 Leu 5	Thr Ile Arg 1459 Gln 10 Asn Ala	Met Ala 1458 Pro Thr Ile Arg	Leu 1456 Lys 30 Lys Gln Asn 1464 Ile	Ala 1455 Pro 55 Ala Pro Arg Glu 1463 Ile	Glu Gly Thr Val 1461 Cys Val	Leu Asp Val 1460 Asn S Val Gly	Asp Asn 1458 Thr OO Phe Arg	Leu 1457 Ile 35 Trp Glu Ser Val 1465 Thr	Arg 70 Lys Lys Thr Asp 1463 Gly	Gly Val Lys Thr 1462 Ser 35 Asp	Glu Gly 1460 Ala 20 Gly Val	Ile 1459 Asp 5 Thr Pro	Gln 1457 Pro 00 Gln Ser Tyr Thr 1465 Phe	14560 Lys 75 Val Ile Thr Pro 14640 Ile
E> E> E> E> E>	3219 3220 3221 3222 3223 3224 3225 3226 3227 3228 3229 3230 3231 3232	Leu Leu Leu Ile 1462 Leu Gln	Gln Val Gly Lys 146: Leu Thr Val	Thr Ile Arg 1459 Gln 10 Asn Ala His	Met Ala 1458 Pro 5 Thr Ile Arg Asp 1466 Ser	Leu 1456 Lys 30 Lys Gln Asn 1466 Ile 50 Asp	Ala 1455 Pro 55 Ala Pro Arg Glu 1463 Ile 15 Pro	Glu Gly Thr Val 1461 Cys O Val Gly Val	Leu Asp Val 1460 Asn S Val Gly Pro	Asp Asn 1458 Thr 00 Phe Arg Glu Pro 1466 Phe	Leu 1457 Ile 35 Trp Glu Ser Val 1465 Thr	Arg Arg Lys Lys Thr Asp 1463 Gly Gly	Gly Val Lys Thr 1462 Ser Asp	Glu Gly 1460 Ala 20 Gly Val	Tyr Ile 1459 Asp 5 Thr Pro Ile Lys 1467	Gln 1457 Pro 00 Gln Ser Tyr Thr 1465 Phe	14560 Lys 75 Val Ile Thr Pro 14640 Ile 55 Asp
E> E> E> E> E>	3219 3220 3221 3222 3223 3224 3225 3226 3227 3228 3230 3231 3232 3233 3234 3235	Leu Leu Leu Ile 1462 Leu Gln Glu	Gln Val Gly Lys 1463 Leu 5 Thr Val	Thr Ile Arg 1459 Gln 10 Asn Ala His Ser 146	Met Ala 1458 Pro 5 Thr Ile Arg Asp 1466 Ser	Leu 1456 Lys Gln Asn 1466 Ile O Asp	Ala 1455 Pro 55 Ala Pro Arg Glu 1463 Ile 15 Pro	Gly Thr Val 1461 Cys Val Gly Val	Leu Asp Val 1460 Asn S Val Gly Pro Thr 1468	Asp Asn 1458 Thr O Phe Arg Glu Pro 1466 Phe	Leu 145 11e 35 Trp Glu Ser Val 1465 Thr 55	Arg O Lys Lys Thr Asp 1463 Gly Gly Trp	Gly Val Lys Thr 1462 Ser 35 Asp Pro Asp	Glu Gly 1460 Ala 20 Gly Val Ile Pro 1468	Ile 1459 Asp 5 Thr Pro Ile Lys 1467 Pro	Gln 1457 Pro Gln Ser Tyr Thr 1465 Phe Glu	14560 Lys 75 Val Ile Thr Pro 14640 Ile 55 Asp
E> E> E> E> E>	3219 3220 3221 3222 3223 3224 3225 3226 3227 3228 3230 3231 3232 3233	Leu Leu Leu Ile 1462 Leu Gln Glu	Gln Val Gly Lys 1463 Leu 5 Thr Val	Thr Ile Arg 1459 Gln 10 Asn Ala His Ser 146	Met Ala 1458 Pro 5 Thr Ile Arg Asp 1466 Ser	Leu 1456 Lys Gln Asn 1466 Ile O Asp	Ala 1455 Pro 55 Ala Pro Arg Glu 1463 Ile 15 Pro	Gly Thr Val 1461 Cys Val Gly Val	Leu Asp Val 1460 Asn S Val Gly Pro Thr 1468	Asp Asn 1458 Thr O Phe Arg Glu Pro 1466 Phe	Leu 145 11e 35 Trp Glu Ser Val 1465 Thr 55	Arg O Lys Lys Thr Asp 1463 Gly Gly Trp	Gly Val Lys Thr 1462 Ser 35 Asp Pro Asp	Glu Gly 1460 Ala 20 Gly Val Ile Pro 1468	Ile 1459 Asp 5 Thr Pro Ile Lys 1467 Pro	Gln 1457 Pro Gln Ser Tyr Thr 1465 Phe Glu	14560 Lys 75 Val Ile Thr Pro 14640 Ile 55 Asp
E> E> E> E> E> E>	3219 3220 3221 3222 3223 3224 3225 3226 3227 3228 3230 3231 3232 3233 3234 3235 3236 3237	Leu Leu Leu Ile 1462 Leu Gln Glu Asp	Gly Lys 146: Leu Thr Val Gly 146:	Thr Ile Arg 1459 Gln 10 Asn Ala His Ser 1469	Met Ala 1458 Pro 5 Thr Ile Arg Asp 1466 Ser Val	Leu 1456 Lys 30 Lys Gln Asn Asn 1466 Ile 50 Asp	Ala 1455 Pro 55 Ala Pro Arg Glu 1463 Ile 15 Pro Phe	Gly Thr Val 1461 Cys Val Gly Val Ser	Leu Asp Val 1460 Asn So Val Gly Pro Thr 1460 Asn	Asp Asn 1458 Thr 00 Phe Arg Glu Pro 1466 Phe 80 Tyr	Leu 145; Ile 35 Trp Glu Ser Val 146; Thr 55 Ser Val	Arg O Lys Lys Thr Asp 1463 Gly Gly Trp Val	Gly Val Lys Thr 1462 Ser 35 Asp Pro Asp Glu 1470	Gly 1460 Ala 20 Gly Val Ile Pro 1468 Met	Ile 1459 Asp 5 Thr Pro Ile Lys 1467 Pro 35 Arg	Gln 1457 Pro 0 Gln Ser Tyr Thr 1465 Phe 70 Glu Gln	14560 Lys 75 Val Ile Thr Pro 14640 Ile 55 Asp Asn Thr
E> E> E> E> E> E>	3219 3220 3221 3222 3223 3224 3225 3226 3227 3228 3230 3231 3232 3233 3234 3235 3236	Leu Leu Leu Ile 1462 Leu Gln Glu Asp	Gly Lys 146: Leu Thr Val Gly 146:	Thr Ile Arg 1459 Gln 10 Asn Ala His Ser 1469	Met Ala 1458 Pro 5 Thr Ile Arg Asp 1466 Ser Val	Leu 1456 Lys 30 Lys Gln Asn Asn 1466 Ile 50 Asp	Ala 1455 Pro 55 Ala Pro Arg Glu 1463 Ile 15 Pro Phe	Gly Thr Val 1461 Cys Val Gly Val Ser	Leu Asp Val 1460 Asn So Val Gly Pro Thr 1460 Asn	Asp Asn 1458 Thr 00 Phe Arg Glu Pro 1466 Phe 80 Tyr	Leu 145; Ile 35 Trp Glu Ser Val 146; Thr 55 Ser Val	Arg O Lys Lys Thr Asp 1463 Gly Gly Trp Val	Gly Val Lys Thr 1462 Ser 35 Asp Pro Asp Glu 1470	Gly 1460 Ala 20 Gly Val Ile Pro 1468 Met	Ile 1459 Asp 5 Thr Pro Ile Lys 1467 Pro 35 Arg	Gln 1457 Pro 0 Gln Ser Tyr Thr 1465 Phe 70 Glu Gln	14560 Lys 75 Val Ile Thr Pro 14640 Ile 55 Asp Asn Thr
E> E> E> E> E> E>	3219 3220 3221 3222 3223 3224 3225 3226 3227 3228 3230 3231 3232 3233 3234 3235 3236 3237 3238 3239	Leu Leu Leu Ile 1462 Leu Gln Glu Asp	Gly Lys 146: Leu Thr Val Gly 146: Ser	Thr Ile Arg 1459 Gln 10 Asn Ala His Ser 1467 Gly 90 Thr	Met Ala 1458 Pro 5 Thr Ile Arg Asp 1466 Ser Val Thr	Leu 1456 Lys 30 Lys Gln Asn Asn 1466 Asp Pro	Ala 1455 Pro 55 Ala Pro Arg Glu 1463 Ile 15 Pro Phe Ile Val	Gly Thr Val 1461 Cys Val Gly Val Ser 1469 Glu	Leu Asp Val 1460 Asn Solution Thr 1460 Asn Leu	Asp Asn 1458 Thr 00 Phe Arg Glu Pro 1466 Phe 30 Tyr Ala	Leu 145; Ile 35 Trp Glu Ser Val 146; Thr 55 Ser Val Thr	Arg 70 Lys Lys Thr Asp 1463 Gly Trp Val Thr	Gly Val Lys Thr 1462 Ser 35 Asp Pro Asp Glu 1470 Val	Gly 1460 Ala 20 Gly Val Ile Pro 1468 Met 00 Ile	Tyr Ile 1459 Asp 5 Thr Pro Ile Lys 1467 Pro 85 Arg	Gln 1457 Pro Gln Ser Tyr Thr 1465 Phe Glu Gln Thr	14560 Lys 75 Val Ile Thr Pro 14640 Ile 55 Asp Asn Thr Thr
E> E> E> E> E> E>	3219 3220 3221 3222 3223 3224 3225 3226 3227 3228 3230 3231 3232 3233 3234 3235 3236 3237 3238	Leu Leu Leu Ile 1462 Leu Gln Glu Asp	Gly Lys 146: Leu Thr Val Gly 146: Ser	Thr Ile Arg 1459 Gln 10 Asn Ala His Ser 1467 Gly 90 Thr	Met Ala 1458 Pro 5 Thr Ile Arg Asp 1466 Ser Val Thr	Leu 1456 Lys 30 Lys Gln Asn Asn 1466 Asp Pro	Ala 1455 Pro 55 Ala Pro Arg Glu 1463 Ile 15 Pro Phe Ile Val	Gly Thr Val 1461 Cys Val Gly Val Ser 1469 Glu	Leu Asp Val 1460 Asn Solution Thr 1460 Asn Leu	Asp Asn 1458 Thr 00 Phe Arg Glu Pro 1466 Phe 30 Tyr Ala	Leu 145; Ile 35 Trp Glu Ser Val 146; Thr 55 Ser Val Thr	Arg O Lys Lys Thr Asp 1463 Gly Trp Val Thr	Gly Val Lys Thr 1462 Ser 35 Asp Pro Asp Glu 1470 Val	Gly 1460 Ala 20 Gly Val Ile Pro 1468 Met 00 Ile	Tyr Ile 1459 Asp 5 Thr Pro Ile Lys 1467 Pro 85 Arg	Gln 1457 Pro Gln Ser Tyr Thr 1465 Phe Glu Gln Thr	14560 Lys 75 Val Ile Thr Pro 14640 Ile 55 Asp Asn Thr Thr

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PATENT APPLICATION: US/09/759,508A

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	3244		V=1	7 <u>.</u> 1 =			Pro	Pho				G1 v	Dro	Dro			Dro
F	3245	110	Val	1475		ı yı	110	LHC	147		110	Gry	110	1470		1111	LLO
E/	3246	Cla	17-1			171	Th.∞	T	-	-	Mat	mb w	т1.			ni o	C1
	3240		147		ATA	val	TIIT	147	-	ser	мес	1111	1478		пр	птѕ	GIU
B>					7\	C1	C1			т1.	T	C1			17 7	C1	7
	3248			Ser	ASP				PIO	тте	ьeu		_	HIS	val	GIU	_
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	3250	гля	GIU.	Arg	Asn			ren	Trp	GIn			Ser	гÀг	Ala		
E>	3251	_		_		1480		_	_		1481		_			1483	
	3252	Pro	GLY	Asn			Lys	Ser	Ser	-		Thr	Asp	GLy			Tyr
E>	3253				1482					1482		_			1483		
	3254	Glu	Phe			Ile	Ala	Glu			Ala	Gly	Lys			Pro	Ser
E>	3255	,		1483					1484					1484			
	3256	_			Glu	Pro	Met			Leu	Asp	Pro			Pro	Pro	Gly
E>	3257		1485					1485					1486				
	3258	Lys	Pro				Asn	Ile	Thr	Arg	His	Thr	Val	Thr	Leu	Lys	\mathtt{Trp}
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	3260	Ala	Lys	Pro	Glu			Gly	Gly	Phe			Thr	Ser	Tyr	Ile	Val
E>	3261					1488	35				1489	90				1489	95
	3262	Glu	Lys	Arg	Asp	Leu	Pro	Asn	Gly	Arg	Trp	Leu	Lys	Ala	Asn	Phe	Ser
E>	3263				1490					1490					1491		
	3264	Asn	Ile	Leu	Glu	Asn	Glu	Phe	Thr	Val	Ser	Gly	Leu	Thr	Glu	Asp	Ala
					-										-		
E>				149					1492					1492			
E>	3265 3266	Ala	Tyr			Arg	Val	Ile			Asn	Ala	Ala			Ile	Ser
	3266 3267		1493	Glu 30	Phe			1493	Ala 35	Lys			1494	Gly 10	Ala		
	3266		1493	Glu 30	Phe		Ser	1493 Asp	Ala 35	Lys		Cys	149 4 Arg	Gly 10	Ala		
E>	3266 3267 3268 3269	Pro 1494	1493 Pro 15	Glu 30 Ser	Phe Glu	Pro	Ser 149	1493 Asp 50	Ala 35 Ala	Lys	Thr	Cys	149 4 Arg 55	Gly 10 Asp	Ala Asp	Val	Glu 14960
E>	3266 3267 3268	Pro 1494	1493 Pro 15	Glu 30 Ser	Phe Glu	Pro	Ser 149	1493 Asp 50	Ala 35 Ala	Lys	Thr	Cys	149 4 Arg 55	Gly 10 Asp	Ala Asp	Val	Glu 14960
E>	3266 3267 3268 3269 3270 3271	Pro 149 4 Ala	1493 Pro 45 Pro	Glu 30 Ser Lys	Phe Glu Ile	Pro Lys 1496	Ser 149 ! Val 55	1493 Asp 50 Asp	Ala 35 Ala Val	Lys Ile Lys	Thr Phe 1497	Cys 149 5 Lys 70	1494 Arg 55 Asp	Gly 10 Asp Thr	Ala Asp Val	Val Ile 149 7	Glu 14960 Leu 75
E>	3266 3267 3268 3269 3270	Pro 149 4 Ala	1493 Pro 45 Pro	Glu 30 Ser Lys	Phe Glu Ile	Pro Lys 1496	Ser 149 ! Val 55	1493 Asp 50 Asp	Ala 35 Ala Val	Lys Ile Lys	Thr Phe 1497	Cys 149 5 Lys 70	1494 Arg 55 Asp	Gly 10 Asp Thr	Ala Asp Val	Val Ile 149 7	Glu 14960 Leu 75
E> E>	3266 3267 3268 3269 3270 3271 3272 3273	Pro 1494 Ala Lys	1493 Pro 45 Pro Ala	Glu 30 Ser Lys Gly	Phe Glu Ile Glu 1498	Pro Lys 149 6 Ala 30	Ser 1495 Val 55 Phe	Asp 50 Asp Asp	Ala 35 Ala Val Leu	Lys Ile Lys Glu 1498	Thr Phe 1497 Ala 35	Cys 1495 Lys 70 Asp	1494 Arg 55 Asp Val	Gly 10 Asp Thr	Ala Asp Val Gly 1499	Val Ile 149 Arg	Glu 14960 Leu 75 Pro
E> E>	3266 3267 3268 3269 3270 3271 3272	Pro 1494 Ala Lys	1493 Pro 45 Pro Ala	Glu 30 Ser Lys Gly	Phe Glu Ile Glu 1498	Pro Lys 149 6 Ala 30	Ser 1495 Val 55 Phe	Asp 50 Asp Asp	Ala 35 Ala Val Leu	Lys Ile Lys Glu 1498	Thr Phe 1497 Ala 35	Cys 1495 Lys 70 Asp	1494 Arg 55 Asp Val	Gly 10 Asp Thr	Ala Asp Val Gly 1499	Val Ile 149 Arg	Glu 14960 Leu 75 Pro
E> E> E>	3266 3267 3268 3269 3270 3271 3272 3273	Pro 1494 Ala Lys	1493 Pro 45 Pro Ala	Glu 30 Ser Lys Gly	Phe Glu Ile Glu 1498 Met	Pro Lys 149 6 Ala 30	Ser 1495 Val 55 Phe	Asp 50 Asp Asp	Ala 35 Ala Val Leu	Lys Ile Lys Glu 1498 Asp	Thr Phe 1497 Ala 35	Cys 1495 Lys 70 Asp	1494 Arg 55 Asp Val	Gly 10 Asp Thr	Ala Asp Val Gly 1499	Val Ile 149 Arg	Glu 14960 Leu 75 Pro
E> E> E>	3266 3267 3268 3269 3270 3271 3272 3273 3274	Pro 1494 Ala Lys Pro	Pro 15 Pro Ala Pro	Glu 30 Ser Lys Gly Thr 1499	Phe Glu Ile Glu 1498 Met	Pro Lys 1496 Ala 30 Glu	Ser 1499 Val 55 Phe Trp	Asp 50 Asp Arg Ser	Ala 35 Ala Val Leu Lys 1500	Lys Ile Lys Glu 1498 Asp	Thr Phe 1497 Ala 35 Gly	Cys 1495 Lys 70 Asp	Arg 55 Asp Val Glu	Gly 10 Asp Thr Ser Leu 1500	Ala Asp Val Gly 1499 Glu 05	Val Ile 1497 Arg OO Gly	Glu 14960 Leu 75 Pro
E> E> E> E>	3266 3267 3268 3269 3270 3271 3272 3273 3274 3275	Pro 1494 Ala Lys Pro	Pro 15 Pro Ala Pro	Glu 30 Ser Lys Gly Thr 1499 Leu	Phe Glu Ile Glu 1498 Met	Pro Lys 1496 Ala 30 Glu	Ser 1499 Val 55 Phe Trp	Asp 50 Asp Arg Ser	Ala 35 Ala Val Leu Lys 1500 Ala	Lys Ile Lys Glu 1498 Asp	Thr Phe 1497 Ala 35 Gly	Cys 1495 Lys 70 Asp	Arg 55 Asp Val Glu	Gly 10 Asp Thr Ser Leu 1500 Asn	Ala Asp Val Gly 1499 Glu 05	Val Ile 1497 Arg OO Gly	Glu 14960 Leu 75 Pro
E> E> E> E>	3266 3267 3268 3269 3270 3271 3272 3273 3274 3275 3276	Pro 1494 Ala Lys Pro Ala	Pro Ala Pro Lys 1501	Glu 30 Ser Lys Gly Thr 1499 Leu	Phe Glu Ile Glu 1498 Met 95 Glu	Pro Lys 1496 Ala 30 Glu Ile	Ser 1499 Val 55 Phe Trp Lys	Asp 50 Asp Arg Ser Ile 1501	Ala 35 Ala Val Leu Lys 1500 Ala	Lys Ile Lys Glu 1498 Asp 00 Asp	Thr Phe 1497 Ala 35 Gly Phe	Cys 1495 Lys 70 Asp Lys Ser	Arg 55 Asp Val Glu Thr 1502	Gly 10 Asp Thr Ser Leu 1500 Asn	Ala Asp Val Gly 1499 Glu 05 Leu	Val Ile 1497 Arg 90 Gly Val	Glu 14960 Leu 75 Pro Thr
E> E> E> E>	3266 3267 3268 3269 3270 3271 3272 3273 3274 3275 3276 3277	Pro 1494 Ala Lys Pro Ala Lys	Pro Ala Pro Lys 1501 Asp	Glu 30 Ser Lys Gly Thr 1499 Leu	Phe Glu Ile Glu 1498 Met 95 Glu	Pro Lys 1496 Ala 30 Glu Ile Arg	Ser 1499 Val 55 Phe Trp Lys	Asp 50 Asp Arg Ser Ile 1501 Asp	Ala 35 Ala Val Leu Lys 1500 Ala L5 Ser	Lys Ile Lys Glu 1498 Asp 00 Asp	Thr Phe 1497 Ala 35 Gly Phe Ala	Cys 1495 Lys 70 Asp Lys Ser	Arg 55 Asp Val Glu Thr 1502	Gly 10 Asp Thr Ser Leu 1500 Asn	Ala Asp Val Gly 1499 Glu 05 Leu	Val Ile 1497 Arg 90 Gly Val	Glu 14960 Leu 75 Pro Thr
E> E> E> E>	3266 3267 3268 3269 3270 3271 3272 3273 3274 3275 3276 3277 3278 3278	Pro 1494 Ala Lys Pro Ala Lys 1502	Pro Ala Pro Lys 1501 Asp	Glu 30 Ser Lys Gly Thr 1499 Leu 10 Ser	Phe Glu Ile Glu 1498 Met 95 Glu Thr	Pro Lys 1496 Ala 30 Glu Ile Arg	Ser 1499 Val 55 Phe Trp Lys Arg	Asp 50 Asp Arg Ser Ile 1500 Asp	Ala 35 Ala Val Leu Lys 1500 Ala 15 Ser	Lys Ile Lys Glu 1498 Asp 00 Asp	Thr Phe 1497 Ala 35 Gly Phe Ala	Cys 1495 Lys 70 Asp Lys Ser Tyr	1494 Arg 55 Asp Val Glu Thr 1502 Thr	Gly 10 Asp Thr Ser Leu 1500 Asn 20 Leu	Ala Asp Val Gly 1499 Glu 05 Leu Thr	Val Ile 1497 Arg O Gly Val Ala	Glu 14960 Leu 75 Pro Thr Asn Thr 15040
E> E> E> E> E>	3266 3267 3268 3270 3271 3272 3273 3274 3275 3276 3277 3278	Pro 1494 Ala Lys Pro Ala Lys 1502	Pro Ala Pro Lys 1501 Asp	Glu 30 Ser Lys Gly Thr 1499 Leu 10 Ser	Phe Glu Ile Glu 1498 Met 95 Glu Thr	Pro Lys 1496 Ala 30 Glu Ile Arg	Ser 1495 Val 55 Phe Trp Lys Arg 1503 Ala	Asp 50 Asp Arg Ser Ile 1500 Asp	Ala 35 Ala Val Leu Lys 1500 Ala 15 Ser	Lys Ile Lys Glu 1498 Asp 00 Asp	Thr Phe 1497 Ala 35 Gly Phe Ala	Cys 1495 Lys 70 Asp Lys Ser Tyr 1503 Asn	1494 Arg 55 Asp Val Glu Thr 1502 Thr	Gly 10 Asp Thr Ser Leu 1500 Asn 20 Leu	Ala Asp Val Gly 1499 Glu 05 Leu Thr	Val Ile 1497 Arg O Gly Val Ala	Glu 14960 Leu 75 Pro Thr Asn Thr 15040 Asp
E> E> E> E> E>	3266 3267 3268 3269 3270 3271 3272 3273 3274 3275 3276 3277 3278 3279 3280 3281	Pro 1494 Ala Lys Pro Ala Lys 1502 Asn	Pro Ala Pro Lys 1501 Asp Pro	Glu 30 Ser Lys Gly Thr 1499 Leu 10 Ser	Phe Glu Ile Glu 1498 Met 95 Glu Thr	Pro Lys 1496 Ala 30 Glu Ile Arg Phe 1506	Ser 1495 Val 65 Phe Trp Lys Arg 1503 Ala	Asp 50 Asp Arg Ser Ile 1501 Asp 30 Lys	Ala 35 Ala Val Leu Lys 1500 Ala L5 Ser His	Lys Ile Lys Glu 1498 Asp O Asp Gly Ile	Thr Phe 1497 Ala 35 Gly Phe Ala Phe 1505	Cys 1495 Lys 70 Asp Lys Ser Tyr 1503 Asn	Arg 55 Asp Val Glu Thr 1502 Thr 35 Val	Gly 10 Asp Thr Ser Leu 1500 Asn 20 Leu Lys	Ala Asp Val Gly 1499 Glu D5 Leu Thr	Val Ile 149: Arg O Gly Val Ala Leu 150:	Glu 14960 Leu 75 Pro Thr Asn Thr 15040 Asp
E> E> E> E> E>	3266 3267 3268 3269 3270 3271 3272 3273 3274 3275 3276 3277 3278 3280	Pro 1494 Ala Lys Pro Ala Lys 1502 Asn	Pro Ala Pro Lys 1501 Asp Pro	Glu 30 Ser Lys Gly Thr 1499 Leu 10 Ser Gly	Phe Glu Ile Glu 1498 Met 95 Glu Thr	Pro Lys 1496 Ala 30 Glu Ile Arg Phe 1504 Pro	Ser 1495 Val 65 Phe Trp Lys Arg 1503 Ala	Asp 50 Asp Arg Ser Ile 1501 Asp 30 Lys	Ala 35 Ala Val Leu Lys 1500 Ala L5 Ser His	Lys Ile Lys Glu 1498 Asp O Asp Gly Ile	Thr Phe 1497 Ala 35 Gly Phe Ala Phe 1505 Ala	Cys 1495 Lys 70 Asp Lys Ser Tyr 1503 Asn	Arg 55 Asp Val Glu Thr 1502 Thr 35 Val	Gly 10 Asp Thr Ser Leu 1500 Asn 20 Leu Lys	Ala Asp Val Gly 1499 Glu D5 Leu Thr	Val Ile 1497 Arg O Gly Val Ala Leu 1505	Glu 14960 Leu 75 Pro Thr Asn Thr 15040 Asp
E> E> E> E> E>	3266 3267 3268 3269 3270 3271 3272 3273 3274 3275 3276 3277 3278 3280 3281 3282 3283	Pro 1494 Ala Lys Pro Ala Lys 1502 Asn Arg	Pro Ala Pro Lys 1501 Asp Pro Pro	Glu 30 Ser Lys Gly Thr 1499 Leu 10 Ser Gly Gly	Phe Glu Ile Glu 1498 Met 5 Glu Thr Gly Pro 1506	Pro Lys 1496 Ala 30 Glu Ile Arg Phe 1504 Pro 50	Ser 1495 Val 65 Phe Trp Lys Arg 1503 Ala 61u	Asp 50 Asp Arg Ser Ile 1500 Asp Asp Gly	Ala 35 Ala Val Leu Lys 1500 Ala L5 Ser His	Lys Ile Lys Glu 1498 Asp O Asp Gly Ile Leu 1506	Thr Phe 1497 Ala 35 Gly Phe Ala Phe 1505 Ala 55	Cys 1495 Lys 70 Asp Lys Ser Tyr 1503 Asn 50	Arg Arg Asp Val Glu Thr 1502 Thr Val Thr	Gly 10 Asp Thr Ser Leu 1500 Asn 20 Leu Lys Glu	Ala Asp Val Gly 1499 Glu 55 Leu Thr Val Val	Val Ile 1497 Arg O Gly Val Ala Leu 1505 Thr	Glu 14960 Leu 75 Pro Thr Asn Thr 15040 Asp 55 Ser
E> E> E> E> E> E>	3266 3267 3268 3269 3270 3271 3272 3273 3274 3275 3276 3277 3278 3280 3281 3282	Pro 1494 Ala Lys Pro Ala Lys 1502 Asn Arg	Pro Ala Pro Lys 1501 Asp Pro Pro	Glu 30 Ser Lys Gly Thr 1499 Leu 10 Ser Gly Gly	Phe Glu Ile Glu 1498 Met 95 Glu Thr Gly Pro 1506 Val	Pro Lys 1496 Ala 30 Glu Ile Arg Phe 1504 Pro 50	Ser 1495 Val 65 Phe Trp Lys Arg 1503 Ala 61u	Asp 50 Asp Arg Ser Ile 1500 Asp Asp Gly	Ala 35 Ala Val Leu Lys 1500 Ala L5 Ser His	Lys Ile Lys Glu 1498 Asp O Asp Gly Ile Leu 1506 Pro	Thr Phe 1497 Ala 35 Gly Phe Ala Phe 1505 Ala 55	Cys 1495 Lys 70 Asp Lys Ser Tyr 1503 Asn 50	Arg Arg Asp Val Glu Thr 1502 Thr Val Thr	Gly 10 Asp Thr Ser Leu 1500 Asn 20 Leu Lys Glu	Ala Asp Val Gly 1499 Glu 5 Leu Thr Val Val 1507 Gly	Val Ile 1497 Arg O Gly Val Ala Leu 1505 Thr	Glu 14960 Leu 75 Pro Thr Asn Thr 15040 Asp 55 Ser
E> E> E> E> E> E>	3266 3267 3268 3269 3270 3271 3272 3273 3274 3275 3276 3277 3278 3280 3281 3282 3283 3284 3285	Pro 1494 Ala Lys Pro Ala Lys 1502 Asn Arg Glu	Pro Ala Pro Lys 1501 Asp Pro Pro Lys	Glu 30 Ser Lys Gly Thr 1499 Leu 10 Ser Gly Gly Cys 150	Phe Glu Ile Glu 1498 Met S Glu Thr Gly Pro 1506 Val	Pro Lys 1496 Ala 30 Glu Ile Arg Phe 1506 Pro Leu	Ser 1499 Val 65 Phe Trp Lys Arg 1503 Ala 45 Glu	Asp 50 Asp Arg Ser Ile 1500 Asp Clys Gly Trp	Ala 35 Ala Val Leu Lys 1500 Ala L5 Ser His Pro Phe 1508	Lys Ile Lys Glu 1498 Asp O Asp Gly Ile Leu 1506 Pro	Thr Phe 1497 Ala 35 Gly Phe Ala Phe 1505 Ala 55 Pro	Cys 1499 Lys 70 Asp Lys Ser Tyr 1500 Asn O Val	Arg Arg Asp Val Glu Thr 1502 Thr S5 Val Thr Asp	Gly 10 Asp Thr Ser Leu 1500 Asn 20 Leu Lys Glu Asp 1508	Ala Asp Val Gly 1499 Glu D5 Leu Thr Val Val 1507 Gly 85	Val Ile 1497 Arg O Gly Val Ala Leu 1505 Thr O Gly	Glu 14960 Leu 75 Pro Thr Asn Thr 15040 Asp 55 Ser Ala
E> E> E> E> E> E> E>	3266 3267 3268 3269 3270 3271 3272 3273 3274 3275 3276 3277 3278 3280 3281 3282 3283 3284	Pro 1494 Ala Lys Pro Ala Lys 1502 Asn Arg Glu Lys	Pro Ala Pro Lys 1501 Asp Pro Pro Lys	Glu 30 Ser Lys Gly Thr 1499 Leu 10 Ser Gly Gly Cys 150 Asp	Phe Glu Ile Glu 1498 Met 5 Glu Thr Gly Pro 1506 Val 75 His	Pro Lys 1496 Ala 30 Glu Ile Arg Phe 1506 Pro Leu	Ser 1499 Val 55 Phe Trp Lys Arg 1503 Ala 45 Glu Ser	Asp 50 Asp Arg Ser Ile 1500 Asp Clys Gly Trp	Ala 35 Ala Val Leu Lys 1500 Ala L5 Ser His Pro Phe 1508 Gln	Lys Ile Lys Glu 1498 Asp O Asp Gly Ile Leu 1506 Pro	Thr Phe 1497 Ala 35 Gly Phe Ala Phe 1505 Ala 55 Pro	Cys 1499 Lys 70 Asp Lys Ser Tyr 1500 Asn O Val	Arg Arg Asp Val Glu Thr 1502 Thr S5 Val Thr Asp	Gly 10 Asp Thr Ser Leu 1500 Asn 20 Leu Lys Glu Asp 1508 Ser	Ala Asp Val Gly 1499 Glu D5 Leu Thr Val Val 1507 Gly 85	Val Ile 1497 Arg O Gly Val Ala Leu 1505 Thr O Gly	Glu 14960 Leu 75 Pro Thr Asn Thr 15040 Asp 55 Ser Ala
E> E> E> E> E> E> E>	3266 3267 3268 3269 3270 3271 3272 3273 3274 3275 3276 3277 3278 3280 3281 3282 3283 3284 3285 3286 3287	Pro 1494 Ala Lys Pro Ala Lys 1502 Asn Arg Glu Lys	Pro Ala Pro Lys 1501 Asp Pro Lys Ile 1505	Glu 30 Ser Lys Gly Thr 1499 Leu 10 Ser Gly Gly Cys 1500 Asp	Phe Glu Ile Glu 1498 Met 5 Glu Thr Gly Pro 1506 Val 75 His	Pro Lys 1496 Ala 30 Glu Ile Arg Phe 1506 Pro Leu Tyr	Ser 1499 Val 55 Phe Trp Lys Arg 1503 Ala 45 Glu Ser	Asp 50 Asp Arg Ser Ile 1500 Asp Gly Trp Val 1500	Ala 35 Ala Val Leu Lys 1500 Ala 15 Ser His Pro Phe 1508 Gln	Lys Ile Lys Glu 1498 Asp O Asp Gly Ile Leu 1506 Pro 30 Lys	Thr Phe 1497 Ala 35 Gly Phe Ala Phe 1505 Ala 55 Pro Arg	Cys 1495 Lys 70 Asp Lys Ser Tyr 1503 Asn 50 Val	Arg Arg 55 Asp Val Glu Thr 1502 Thr 35 Val Thr Asp	Gly 10 Asp Thr Ser Leu 1500 Asn 20 Leu Lys Glu Asp 1508 Ser	Ala Asp Val Gly 1499 Glu 5 Leu Thr Val Val 1507 Gly 5 Arg	Val Ile 1497 Arg O Gly Val Ala Leu 1505 Thr O Gly Leu	Glu 14960 Leu 75 Pro Thr Asn Thr 15040 Asp 55 Ser Ala Ala
E> E> E> E> E> E> E>	3266 3267 3268 3269 3270 3271 3272 3273 3274 3275 3276 3277 3280 3281 3282 3283 3284 3285 3286	Pro 1494 Ala Lys Pro Ala Lys 1502 Asn Arg Glu Lys Trp	Pro Ala Pro Lys 1501 Asp 25 Pro Lys Ile 1503 Thr	Glu 30 Ser Lys Gly Thr 1499 Leu 10 Ser Gly Gly Cys 1500 Asp	Phe Glu Ile Glu 1498 Met 5 Glu Thr Gly Pro 1506 Val 75 His	Pro Lys 1496 Ala 30 Glu Ile Arg Phe 1506 Pro Leu Tyr	Ser 1499 Val 55 Phe Trp Lys Arg 1503 Ala 45 Glu Ser	Asp 50 Asp Arg Ser Ile 1500 Asp Gly Trp Val 1500 Glu	Ala 35 Ala Val Leu Lys 1500 Ala 15 Ser His Pro Phe 1508 Gln	Lys Ile Lys Glu 1498 Asp O Asp Gly Ile Leu 1506 Pro 30 Lys	Thr Phe 1497 Ala 35 Gly Phe Ala Phe 1505 Ala 55 Pro Arg	Cys 1495 Lys 70 Asp Lys Ser Tyr 1503 Asn 50 Val	Arg Arg 55 Asp Val Glu Thr 1502 Thr 35 Val Thr Asp Thr Lys	Gly 10 Asp Thr Ser Leu 1500 Asn 20 Leu Lys Glu Asp 1508 Ser	Ala Asp Val Gly 1499 Glu 5 Leu Thr Val Val 1507 Gly 5 Arg	Val Ile 1497 Arg O Gly Val Ala Leu 1505 Thr O Gly Leu	Glu 14960 Leu 75 Pro Thr Asn Thr 15040 Asp 55 Ser Ala Ala

	3290		Leu	Leu					_			-					
E>	3291		T	C1		151:			T 0.11				D			151	
	3292		ΙŅΙ									GIU	Pro	vaı			Val
E>	3293		_		1514					151					151		
_	3294		Pro										Pro			Thr	Thr
E>	3295				55				151					1516			
	3296	Ile	Thr	Lys	Asp	Ser	Met	Val	Val	Cys	Trp	Gly	His	Pro	Asp	Ser	Asp
E>	3297												1518				
	3298	Gly	Gly	Ser	Glu	Ile	Ile	Asn	Tyr	Ile	Val	Glu	Arg	Arg	Asp	Lys	Ala
E>	3299						1519					1519					15200
	3300	Gly	Gln								Lys	Thr	Leu	Thr	Asp	Leu	Arg
E>	3301			,		1520)5				152:					152:	
	3302	Tyr	Lys	Val	Ser	Gly	Leu	Thr	Glu	Gly	His	Glu	Tyr	Glu	Phe	Arg	Ile
E>	3303				1522					152					1523		
	3304	Met	Ala	Glu	Asn	Ala	Ala	Gly	Ile	Ser	Ala	Pro	Ser	Pro	Thr	Ser	Pro
E>	3305			152	35				1524	40				1524	15		,
	3306	Phe	Tyr	Lys	Ala	Cys	Asp	Thr	Val	Phe	Lys	Pro	Gly	Pro	Pro	Gly	Asn
E>	3307		152			_		152			_		1526			•	
	3308	Pro	Arg	Val	Leu	Asp	Thr	Ser	Arg	Ser	Ser	Ile	Ser	Ile	Ala	Trp	Asn
E>	3309		65				1527	70	-			1527	75			_	15280
	3310	Lys	Pro	Ile	Tyr	Asp	Gly	Gly						Tyr	Met	Val	Glu
E>	3311				-	1528		_			1529		-	-		1529	
	3312	Ile	Ala	Leu	Pro	Glu	Glu	Asp	Glu	Trp	Gln	Ile	Val	Thr	Pro	Pro	Ala
E>	3313				1530			•		1530					1531		
	3314	Glv	Leu	Lvs	Ala	Thr	Ser	Tvr	Thr	Ile	Thr	Glv	Leu	Thr	Glu	Asn	Gln
E>	3315			153				- 1 -	1532			1		1532			
	3316	Glu	Tvr	Lvs	Ile	Ara	Ile	Tvr	Ala	Met	Asn	Ser	Glu	Glv	Len	Glv	Glu
E>	3317		1533										1534	-		1	
	3318	Pro													Met	Leu	Pro
E>	3319						1535			-3-		1535		5			15360
	3320			Ile	Glu				Asp	Len				Val	Thr	Tle	
E>						1536					1537					1537	
	3322	Ala	Cvs	Cvs	Thr								Lvs	Glv			
E>			- 1 -	-1-	1538		5			1538			-1-	0-1	1539		p
	3324	Pro	Glu	Val			Ala	Ara	Asp			Glu	Ser	Leu			Ala
E>				1539	95	- 1		5	1540		2			1540		-1-	
	3326	Ser	Ile						Tyr							Asn	Va1
E>			1541					1541	_				1542		1		
	3328	Asn	Ara	Phe	Asp	Ser	Glv	Lvs	Tvr	Ile	Leu	Thr	Val	Glu	Asn	Ser	Ser
E>	3329				- 1							1543					15440
	3330					Ala	Phe	Val	Asn	Val	Ara			Asp	Thr		
E>		- 4		- 1		1544					1545					1545	
_	3332	Pro	Pro	Gln	Asp			Val	Lvs	G] u			Lvs	Thr	Ser		
B							-1-		-1-	1546			-10		1547		
ヒーーノ					1546	พ											
F>	3333	Leu	Thr	Trp	1546 Asp							Glv	Ser				Asp
	3333 3334	Leu	Thr		Asp			Leu	Leu	Asp		Gly		Lys	Ile		Asn
E>	3333 3334 3335			154	Asp 75	Pro	Pro	Leu	Leu 154 8	Asp 30	Gly			Lys 1548	Ile 5	Lys	
E>	3333 3334 3335 3336	Tyr	Ile	154 7 Val	Asp 75	Pro	Pro	Leu Glu	Leu 1548 Ser	Asp 30	Gly		Ala	Lys 1548 Tyr	Ile 5	Lys	
E>	3333 3334 3335	Tyr	Ile 154 9	1547 Val 90	Asp 75 Glu	Pro Lys	Pro Arg	Leu Glu 1549	Leu 1548 Ser 95	Asp 30 Thr	Gly Arg	Lys	Ala 155 0	Lys 1548 Tyr 0	Ile 8 5 Ser	Lys Thr	Val

E>	3339	155	05				155	10				155	15				15520
	3340	Gly	Cys	Ser	Tyr	Tyr	Phe	Arg	Val	Leu	Ala	Glu	Asn	Glu	Tyr	Gly	Ile
E>	3341					1552	25				1553	30			_	155	35
	3342	Gly	Leu	Pro	Ala	Glu	Thr	Ala	Glu	Ser	Val	Lys	Ala	Ser	Glu	Arg	Pro
E>	3343				1554					1554					1555		
	3344	Leu	Pro	Pro	Gly	Lys	Ile	Thr	Leu	Met	Asp	Val	Thr	Arg	Asn	Ser	Val .
E>	3345			155					1556					1556			
	3346	Ser	Leu	Ser	Trp	Glu	Lys	Pro	Glu	His	Asp	Gly	Gly	Ser	Arg	Ile	Leu
E>	3347		1557					155'					1558				
	3348	Gly	Tyr	Ile	Val	Glu	Met	Gln	Thr	Lys	Gly	Ser	Asp	Lys	Trp	Ala	Thr
E>	3349						1559					155					15600
	3350	Cys	Ala	Thr	Val	Lys	Val	Thr	Glu	Ala	Thr	Ile	Thr	Gly	Leu	Ile	Gln
E>	3351					1560					156:					156:	
	3352		Glu	Glu								Gln	Asn	Glu	_	_	Ile
E>	3353				1562										1563		
	3354	Ser	Asp			Gln	Leu	Ser			Val	Ile	Ala	_	_	Leu	Val
E>	3355			1563				_	1564				_	1564	-		
_	3356				Ala	Phe				Phe	Asn	Thr			Val	Leu	Ala
E>	3357		1565	-	.	T		156			70.1	- 1	1566		_	mı	_
	3358			Asp	Leu				vaı	Pro	Pne			Arg	Pro	Thr	
ピーーン	3359 3360			mh se	(T)		156		7 ~~	77-7	D 20 00	156		C1-	Mb	mъ	15680
E>	3361	Ala	val	THE	тр	1568		Asp	ASII		1569		гуѕ	GIII	Inr	1569	-
E>	3362	U = 1	Aen	71 a	Glu			Glu	λen				T 011	Thr	T10		-
E>	3363	Vai	non	Ara	1570		1111	Giu	ASII	1570		neu	пеп	1111	1571	-	ASP
-										10,0	,,						
	3364	Ala	Cvs	Ara	Glu	Asp	Val	Glv	His	Tyr	Val	Val	Lvs	Len	Thr	Asn	Ser
E>	3364 3365	Ala	_	_		Asp	Val				Val	Val	Lys			Asn	Ser
E>	3365		_	1571	L5	_			1572	20			_	1572	25		
-	3365 3366		Gly	157 : Glu	L5	_		Thr	1572 Leu	20			Val	1572 Leu	25		
-	3365 3366 3367	Ala	Gly 157 3	157 1 Glu 30	L 5 Ala	Ile	Glu	Thr 157 3	1572 Leu 35	20 Asn	Val	Ile	Val 157 4	1572 Leu 10	25 Asp	Lys	Pro
E>	3365 3366 3367 3368	Ala Gly	Gly 157 3 Pro	1571 Glu 30 Pro	L 5 Ala	Ile Gly	Glu	Thr 157 3 Val	1572 Leu 35 Lys	Asn Met	Val Asp	Ile	Val 157 4 Val	1572 Leu 10	25 Asp	Lys	Pro
E>	3365 3366 3367 3368 3369	Ala Gly 1574	Gly 157 3 Pro	1571 Glu 30 Pro	Ala Thr	Ile Gly	Glu Pro 157 5	Thr 1573 Val	1572 Leu 35 Lys	Asn Met	Val Asp	Ile Glu 157 5	Val 157 4 Val	1572 Leu 10 Thr	25 Asp Ala	Lys Asp	Pro Ser 15760
E>	3365 3366 3367 3368	Ala Gly 1574	Gly 157 3 Pro	1571 Glu 30 Pro	Ala Thr	Ile Gly	Glu Pro 157 5 Gly	Thr 1573 Val	1572 Leu 35 Lys	Asn Met	Val Asp	Ile Glu 1575 Asp	Val 157 4 Val	1572 Leu 10 Thr	25 Asp Ala	Lys Asp	Pro Ser 15760 Ile
E>	3365 3366 3367 3368 3369 3370 3371	Ala Gly 157 Ile	Gly 1573 Pro 15 Thr	1571 Glu 30 Pro	Ala Thr Ser	Ile Gly Trp 1576	Glu Pro 157 5 Gly 5 5	Thr 1573 Val 50 Pro	1572 Leu 35 Lys Pro	Asn Met Lys	Val Asp Tyr 1577	Ile Glu 157 9 Asp	Val 1574 Val 55 Gly	1572 Leu 10 Thr	Asp Ala Ser	Lys Asp Ser 157	Pro Ser 15760 Ile 75
E> E>	3365 3366 3367 3368 3369 3370 3371 3372 3373	Ala Gly 157 Ile Asn	Gly 1573 Pro 15 Thr	1571 Glu 30 Pro Leu	Ala Thr Ser Ile 1578	Ile Gly Trp 1576 Val	Glu Pro 1579 Gly 55 Glu	Thr 1573 Val 50 Pro	Leu S5 Lys Pro	Asn Met Lys Asp 1578	Val Asp Tyr 1577 Thr	Ile Glu 157 5 Asp 70 Ser	Val 1574 Val 55 Gly	1572 Leu 10 Thr Gly	Asp Ala Ser Thr	Lys Asp Ser 1577 Trp	Pro Ser 15760 Ile 75 Gln
E> E>	3365 3366 3367 3368 3369 3370 3371 3372	Ala Gly 157 Ile Asn	Gly 1573 Pro 15 Thr	1571 Glu 30 Pro Leu	Ala Thr Ser Ile 1578	Ile Gly Trp 1576 Val	Glu Pro 1579 Gly 55 Glu	Thr 1573 Val 50 Pro	Leu S5 Lys Pro	Asn Met Lys Asp 1578	Val Asp Tyr 1577 Thr	Ile Glu 157 5 Asp 70 Ser	Val 1574 Val 55 Gly	1572 Leu 10 Thr Gly	Asp Ala Ser Thr	Lys Asp Ser 1577 Trp	Pro Ser 15760 Ile 75 Gln
E> E> E>	3365 3366 3367 3368 3370 3371 3372 3373 3374 3375	Ala Gly 1574 Ile Asn Ile	Gly 1573 Pro 15 Thr Asn	1571 Glu 30 Pro Leu Tyr Ser 1579	Thr Ser Ile 1578 Ala	Ile Gly Trp 1576 Val 30 Thr	Glu Pro 157: Gly 55 Glu Val	Thr 1573 Val 50 Pro Lys	Leu 35 Lys Pro Arg Arg	Asn Met Lys Asp 1578 Thr	Val Asp Tyr 1577 Thr S5 Thr	Glu 1575 Asp 70 Ser Ile	Val 1574 Val 55 Gly Thr	Leu 10 Thr Gly Thr Ala 1580	Asp Ala Ser Thr 1579 Cys	Asp Ser 1577 Trp 00 Arg	Pro Ser 15760 Ile 75 Gln Leu
E> E> E>	3365 3366 3367 3368 3370 3371 3372 3373 3374	Ala Gly 1574 Ile Asn Ile	Gly 1573 Pro 15 Thr Asn	1571 Glu 30 Pro Leu Tyr Ser 1579	Thr Ser Ile 1578 Ala S5 Cys	Ile Gly Trp 1576 Val 30 Thr	Glu Pro 157: Gly 55 Glu Val	Thr 1573 Val 50 Pro Lys Ala Gln	Leu S5 Lys Pro Arg Arg 1580	Asn Met Lys Asp 1578 Thr	Val Asp Tyr 1577 Thr S5 Thr	Glu 1575 Asp 70 Ser Ile	Val 1574 Val 55 Gly Thr	Leu 10 Thr Gly Thr Ala 1580	Asp Ala Ser Thr 1579 Cys	Asp Ser 1577 Trp 00 Arg	Pro Ser 15760 Ile 75 Gln Leu
E> E> E> E>	3365 3366 3367 3368 3370 3371 3372 3373 3374 3375 3376 3377	Ala Gly 1574 Ile Asn Ile Lys	Gly 1573 Pro 15 Thr Asn Val	1573 Glu 30 Pro Leu Tyr Ser 1579 Gly	Thr Ser Ile 1578 Ala 95 Cys	Ile Gly Trp 1576 Val 30 Thr	Glu Pro 157: Gly 55 Glu Val	Thr 1573 Val 50 Pro Lys Ala Gln 1581	Leu S5 Lys Pro Arg Arg 1580 Phe	Asn Met Lys Asp 1578 Thr O Arg	Val Asp Tyr 1577 Thr S5 Thr	Glu 1575 Asp 70 Ser Ile Ala	Val 1574 Val 55 Gly Thr Lys Ala 1582	Leu Thr Gly Thr Ala 1580 Glu	Asp Ala Ser Thr 1579 Cys Asn	Asp Ser 157 Trp 00 Arg	Pro Ser 15760 Ile 75 Gln Leu Tyr
E> E> E> E>	3365 3366 3367 3368 3370 3371 3372 3373 3374 3375 3376	Ala Gly 1574 Ile Asn Ile Lys	Gly 1573 Pro 15 Thr Asn Val	1573 Glu 30 Pro Leu Tyr Ser 1579 Gly	Thr Ser Ile 1578 Ala 95 Cys	Ile Gly Trp 1576 Val 30 Thr	Glu Pro 157: Gly 55 Glu Val	Thr 1573 Val 50 Pro Lys Ala Gln 1581	Leu S5 Lys Pro Arg Arg 1580 Phe	Asn Met Lys Asp 1578 Thr O Arg	Val Asp Tyr 1577 Thr S5 Thr	Glu 1575 Asp 70 Ser Ile Ala	Val 1574 Val 55 Gly Thr Lys Ala 1582	Leu Thr Gly Thr Ala 1580 Glu	Asp Ala Ser Thr 1579 Cys Asn	Asp Ser 157 Trp 00 Arg	Pro Ser 15760 Ile 75 Gln Leu Tyr
E> E> E> E>	3365 3366 3367 3368 3370 3371 3372 3373 3374 3375 3376 3378 3378 3379	Ala Gly 1574 Ile Asn Ile Lys Gly 1582	Gly 1573 Pro 15 Thr Asn Val Thr 1581 Lys 25	1573 Glu 30 Pro Leu Tyr Ser 1579 Gly 10 Ser	Ala Thr Ser Ile 1578 Ala Cys Thr	Ile Gly Trp 1576 Val 30 Thr Glu Tyr	Pro 1579 Gly 55 Glu Val Tyr Leu 1583	Thr 1573 Val 50 Pro Lys Ala Gln 1581 Asn	Lys Pro Arg Arg Phe Ser	Asn Met Lys Asp 1576 Thr O Arg	Val Asp Tyr 1577 Thr 35 Thr Ile	Ile Glu 1579 Asp 70 Ser Ile Ala Thr 1583	Val 1574 Val 55 Gly Thr Lys Ala 1582 Val	Leu 10 Thr Gly Thr Ala 1580 Glu 20 Ala	Asp Ala Ser Thr 1579 Cys Asn Gln	Lys Asp Ser 1577 Trp 00 Arg Arg	Pro Ser 15760 Ile 75 Gln Leu Tyr Pro 15840
E> E> E> E>	3365 3366 3367 3368 3370 3371 3372 3374 3375 3376 3377 3378	Ala Gly 1574 Ile Asn Ile Lys Gly 1582	Gly 1573 Pro 15 Thr Asn Val Thr 1581 Lys 25	1573 Glu 30 Pro Leu Tyr Ser 1579 Gly 10 Ser	Ala Thr Ser Ile 1578 Ala Cys Thr	Ile Gly Trp 1576 Val 30 Thr Glu Tyr	Glu Pro 1575 Gly 55 Glu Val Tyr Leu 1583 Pro	Thr 1573 Val 50 Pro Lys Ala Gln 1581 Asn 30	Lys Pro Arg Arg Phe Ser Gly	Asn Met Lys Asp 1578 Thr O Arg Glu Thr	Val Asp Tyr 1577 Thr 35 Thr Ile	Ile Glu 1579 Asp 70 Ser Ile Ala Thr 1583	Val 1574 Val 55 Gly Thr Lys Ala 1582 Val	Leu 10 Thr Gly Thr Ala 1580 Glu 20 Ala	Asp Ala Ser Thr 1579 Cys Asn Gln	Lys Asp Ser 1577 Trp 00 Arg Arg	Pro Ser 15760 Ile 75 Gln Leu Tyr Pro 15840
E> E> E> E>	3365 3366 3367 3368 3370 3371 3372 3373 3374 3375 3376 3378 3379 3380 3381	Ala Gly 1574 Ile Asn Ile Lys Gly 1582 Phe	Gly 1573 Pro 15 Thr Asn Val Thr 1581 Lys 25 Lys	1573 Glu 30 Pro Leu Tyr Ser 1579 Gly 10 Ser Val	Ala Thr Ser Ile 1578 Ala 55 Cys Thr	Ile Gly Trp 1576 Val 30 Thr Glu Tyr Gly 1584	Glu Pro 1575 Gly 55 Glu Val Tyr Leu 1583 Pro	Thr 1573 Val 50 Pro Lys Ala Gln 1583 Asn 30	Leu Lys Pro Arg Arg Phe Ser Gly	Asn Met Lys Asp 1576 Thr O Arg Glu Thr	Val Asp Tyr 1577 Thr 35 Thr Ile Pro Pro 1585	Ile Glu 1575 Asp 70 Ser Ile Ala Thr 1583 Val	Val 1574 Val 55 Gly Thr Lys Ala 1582 Val	Leu 10 Thr Gly Thr Ala 1580 Glu 20 Ala Thr	Asp Ala Ser Thr 1579 Cys Asn Gln Leu	Lys Asp Ser 1577 Trp 00 Arg Arg Tyr Ser 1585	Pro Ser 15760 Ile 75 Gln Leu Tyr Pro 15840 Ser
E> E> E> E> E> E>	3365 3366 3367 3368 3370 3371 3372 3373 3374 3375 3376 3378 3378 3380 3381 3382	Ala Gly 1574 Ile Asn Ile Lys Gly 1582 Phe	Gly 1573 Pro 15 Thr Asn Val Thr 1581 Lys 25 Lys	1573 Glu 30 Pro Leu Tyr Ser 1579 Gly 10 Ser Val	Ala Thr Ser Ile 1578 Ala 55 Cys Thr Pro	Ile Gly Trp 1576 Val 30 Thr Glu Tyr Gly 1584 Glu	Glu Pro 1575 Gly 55 Glu Val Tyr Leu 1583 Pro	Thr 1573 Val 50 Pro Lys Ala Gln 1583 Asn 30	Leu Lys Pro Arg Arg Phe Ser Gly	Asn Met Lys Asp 1576 Thr O Arg Glu Thr Asn	Val Asp Tyr 157 Thr S5 Thr Ile Pro Pro 1585 Glu	Ile Glu 1575 Asp 70 Ser Ile Ala Thr 1583 Val	Val 1574 Val 55 Gly Thr Lys Ala 1582 Val	Leu 10 Thr Gly Thr Ala 1580 Glu 20 Ala Thr	Asp Ala Ser Thr 1579 Cys Asn Gln Leu Asp	Asp Ser 1577 Trp O Arg Arg Tyr Ser 1585 Gly	Pro Ser 15760 Ile 75 Gln Leu Tyr Pro 15840 Ser
E> E> E> E> E> E>	3365 3366 3367 3368 3370 3371 3372 3373 3374 3375 3376 3378 3379 3380 3381 3382 3383	Ala Gly 157 Ile Asn Ile Lys Gly 1582 Phe Arg	Gly 1573 Pro 15 Thr Asn Val Thr 1581 Lys 25 Lys Asp	Ser Val	Ala Thr Ser Ile 1578 Ala S Cys Thr Pro Met 1586	Ile Gly Trp 1576 Val 30 Thr Glu Tyr Gly 1584 Glu 50	Glu Pro 1579 Gly S5 Glu Val Tyr Leu 1583 Pro 15	Thr 1573 Val 50 Pro Lys Ala Gln 1583 Asn 30 Pro	Leu Lys Pro Arg Arg Phe Ser Gly	Asn Met Lys Asp 1576 Thr O Arg Glu Thr Asn 1586	Val Asp Tyr 1573 Thr S5 Thr Ile Pro Pro 1585 Glu 55	Glu 1579 Asp O Ser Ile Ala Thr 1583 Val Fro	Val 1574 Val 55 Gly Thr Lys Ala 1582 Val Val	Leu 10 Thr Gly Thr Ala 1580 Glu 20 Ala Thr	Asp Ala Ser Thr 1579 Cys Asn Gln Leu Asp	Asp Ser 1577 Trp 00 Arg Arg Tyr Ser 1589 Gly	Pro Ser 15760 Ile 75 Gln Leu Tyr Pro 15840 Ser 65 Gly
E> E> E> E> E> E> E>	3365 3366 3367 3368 3370 3371 3372 3373 3374 3375 3376 3378 3378 3380 3381 3382 3383 3384	Ala Gly 157 Ile Asn Ile Lys Gly 1582 Phe Arg	Gly 1573 Pro 15 Thr Asn Val Thr 1581 Lys 25 Lys Asp	Ser Val	Ala Thr Ser Ile 1578 Ala 55 Cys Thr Pro Met 1588 Ile	Ile Gly Trp 1576 Val 30 Thr Glu Tyr Gly 1584 Glu 50	Glu Pro 1579 Gly S5 Glu Val Tyr Leu 1583 Pro 15 Val Tyr	Thr 1573 Val 50 Pro Lys Ala Gln 1583 Asn 80 Pro Gln His	Leu Lys Pro Arg Arg Phe Ser Gly Trp Leu	Asn Met Lys Asp 1578 Thr O Arg Glu Thr Asn 1586 Glu	Val Asp Tyr 1573 Thr S5 Thr Ile Pro Pro 1585 Glu 55	Glu 1579 Asp O Ser Ile Ala Thr 1583 Val Fro	Val 1574 Val 55 Gly Thr Lys Ala 1582 Val Val	Leu 10 Thr Gly Thr Ala 1580 Glu 20 Ala Thr Ser Arg	Asp Ala Ser Thr 1579 Cys Shan Gln Leu Asp Asn	Asp Ser 1577 Trp 00 Arg Arg Tyr Ser 1589 Gly	Pro Ser 15760 Ile 75 Gln Leu Tyr Pro 15840 Ser 65 Gly
E> E> E> E> E> E> E>	3365 3366 3367 3368 3369 3370 3371 3372 3373 3374 3375 3378 3378 3380 3381 3382 3383 3384 3385	Ala Gly 157 Ile Asn Ile Lys Gly 1582 Phe Arg Ser	Gly 1573 Pro 15 Thr Asn Val Thr 1581 Lys 25 Lys Asp Arg	Ser Val	Ala Thr Ser Ile 1578 Ala 55 Cys Thr Pro Met 1586 Ile 75	Ile Gly Trp 1576 Val 30 Thr Glu Tyr Gly 1584 Glu 60 Gly	Glu Pro 1579 Gly S5 Glu Val Tyr Leu 1583 Pro 15 Val Tyr	Thr 1573 Val 50 Pro Lys Ala Gln 1583 Asn 80 Pro Gln His	Leu S5 Lys Pro Arg Arg Phe S5 Ser Gly Trp Leu 1588	Asn Met Lys Asp 1578 Thr O Arg Glu Thr Asn 1586 Glu 30	Val Asp Tyr 1573 Thr S5 Thr Ile Pro Pro 1585 Glu S5 Arg	Glu 1579 Asp O Ser Ile Ala Thr 1583 Val Fro	Val 1574 Val 55 Gly Thr Lys Ala 1582 Val Val Ile	Leu 10 Thr Gly Thr Ala 1580 Glu 20 Ala Thr Ser Arg	Asp Ala Ser Thr 1579 Cys Asn Gln Leu Asp Asn 35	Asp Ser 1577 Trp 00 Arg Arg Tyr Ser 1589 Gly 00 Ser	Pro Ser 15760 Ile 75 Gln Leu Tyr Pro 15840 Ser 65 Gly Ile
E> E> E> E> E> E> E>	3365 3366 3367 3368 3370 3371 3372 3373 3374 3375 3376 3378 3378 3380 3381 3382 3383 3384	Ala Gly 157 Ile Asn Ile Lys Gly 1582 Phe Arg Ser Leu	Gly 1573 Pro 15 Thr Asn Val Thr 1581 Lys 25 Lys Asp Arg	1573 Glu 30 Pro Leu Tyr Ser 1579 Gly 0 Ser Val Ser Val 1587 Val	Ala Thr Ser Ile 1578 Ala 55 Cys Thr Pro Met 1586 Ile 75	Ile Gly Trp 1576 Val 30 Thr Glu Tyr Gly 1584 Glu 60 Gly	Glu Pro 1579 Gly S5 Glu Val Tyr Leu 1583 Pro 15 Val Tyr	Thr 1573 Val 50 Pro Lys Ala Gln 1583 Asn 80 Pro Gln His	Leu Since Line Line Line Line Line Line Line Lin	Asn Met Lys Asp 1578 Thr O Arg Glu Thr Asn 1586 Glu 30	Val Asp Tyr 1573 Thr S5 Thr Ile Pro Pro 1585 Glu S5 Arg	Glu 1579 Asp O Ser Ile Ala Thr 1583 Val Fro	Val 1574 Val 55 Gly Thr Lys Ala 1582 Val Val Ile	Leu 10 Thr Gly Thr Ala 1580 Glu 20 Ala Thr Ser Arg 1588 Thr	Asp Ala Ser Thr 1579 Cys Asn Gln Leu Asp Asn 35	Asp Ser 1577 Trp 00 Arg Arg Tyr Ser 1589 Gly 00 Ser	Pro Ser 15760 Ile 75 Gln Leu Tyr Pro 15840 Ser 65 Gly Ile

	3388															Ser	
E>	3389						1591	LO	_	_	_	1591				_	15920
•	3390	Glu	Asn	Ile				Gly	Lys				Val	Ser	Glu	_	_
E>	3391					1592					1593					1593	
	3392		Ala	Arg					Pro					Glu			Ile
E-~>	3393														1595		
	3394		Thr			Ser	Val	Thr			Trp	Lys				Tyr	Asp
E>	3395			159					1596					1596			
	3396			Ser	Lys	Ile	Thr								Glu	Leu	Pro
E>	3397		159		_			159	-				1598				
	3398								Ser	Phe	Thr			Ile	Asp	Thr	
E>	3399		35				1599	90				1599					16000
	3400	Phe	Glu	Val	Thr	_						-	_		Phe	Arg	Val
E>	3401					1600					1601					1601	
	3402	Ile	Ala				Ala	Gly				Glu	Pro				Thr
E>	3403				1602					1602					1603	-	
	3404	_	Ala										Pro	-		Ser	Met
E>	3405			1603					1604					1604	-		
	3406				Tyr	Lys	Asp	Thr	Ile	Val	Val				Glu	Ser	Phe
E>	3407		160					160	55				1606				
	3408	Lys	Val	Asp	Ala	Asp		Tyr	Gly	Lys	Pro			Thr	Ile	Gln	Trp
E>	3409						1607		_			160					16080
	3410	Ile											Arg	Leu	Glu	Ile	Lys
E>	3411															1609	
	3412	Ser	Thr	Asp	Phe									Ala	Val	Arg	Val
E>	3413				1610										1611		
	3414	_								Ala	Lys	Asn	Val			Glu	Arg
E>	3415			161					1612	20				1612			
	3416				Val	Asn		_							Pro	Pro	Glu
E>	3417		1613					1613					1614				
	3418			Val	Val	Ile	Ser	Gly	Val	Thr	Ala			Cys	Thr	Leu	
E>	3419						1615	50				1615					16160
	3420		Lys	Pro	Pro		Gln	Asp	Gly	Gly	Ser	Asp	Ile	Ile	Asn		
E>	3421					161		-								1617	
	3422	Val	Glu				Thr	Ser				Trp	Thr				Ala
E>	3423				1618					1618					1619		
	3424	Asn	Val			Leu	Ser						Leu			Gly	Asn
E>	3425			161					1620					1620			
	3426									Val	Asn				Val	Gly	Glu
E>	3427-							162:					1622				
	3428			Glu	Ser				Val	Ala	Lys			Phe	Val	Val	
E>	3429						1623					1623			_	_	16240
	3430	Asp	Ala	Pro				Glu	Val	Thr							
E>	2424					162					1625					1625	
	3432		Val				Arg	Pro				Gly	Gly	Ser			Leu .
E>	3432 3433				162	60				162	65				162	70	
	3432 3433 3434	Gly	Tyr	Val	162 Leu	60			Asp	162 6	65			Arg	1627 Trp	70	
	3432 3433 3434 3435	Gly	Tyr	Val 162	1620 Leu 75	60 Glu	Lys	Arg	Asp 162 8	1620 Lys 30	65 Glu	Gly	Ile	Arg 162 8	1627 Trp 35	70 Thr	Arg
	3432 3433 3434	Gly	Tyr	Val 162	1620 Leu 75	60 Glu	Lys	Arg	Asp 162 8	1620 Lys 30	65 Glu	Gly	Ile	Arg 162 8	1627 Trp 35	70 Thr	Arg

E>	3437		162	90				162	95				163	00			
	3438	Ile	Glu	Asn	His	Asp	Tyr	Glu	Phe	Arg	Val	Ser	Ala	Glu	Asn	Ala	Ala
E>	3439					-	163			-		163:					16320
	3440	Gly	Leu	Ser	Glu	Pro	Ser	Pro	Pro	Ser	Ala	Tvr	Gln	Lvs	Ala	Cvs	Asp
E>	3441	-				163					1633			-		1633	_
	3442	Pro	Ile	Tvr	Lvs			Pro	Pro	Asn			Lvs	Val	Ile		
E>	3443			- 4	163					1634			-1-		163!	_	
	3444	Thr	Ara	Ser	Ser	Val	Phe	Leu	Ser			Lvs	Pro	Ile	Tvr	Asp	Glv
E>	3445		ĺ	163					163			- 2		163			1
	3446	Gly	Cys	Glu	Ile	Gln	Gly	Tyr	Ile	Val	Glu	Lvs	Cvs	Asp	Val	Asn	Val
E>	3447		163					163				-	163				
	3448	Gly	Glu	Trp	Thr	Met	Cys	Thr	Pro	Pro	Thr	Gly	Ile	Asn	Lvs	Thr	Asn
E>	3449			-			163					1639			-4		16400
	3450	Ile	Glu	Val	Glu	Lys	Leu	Leu	Glu	Lys	His	Glu	Tyr	Asn	Phe	Arg	Ile
E>	3451					1640					1641		-			1641	
	3452	Cys	Ala	Ile	Asn	Lys	Ala	Gly	Val	Gly	Glu	His	Ala	Asp	Val	Pro	Glv
E>	3453				1642			_		1642				-	1643		-
	3454	Pro	Ile	Ile	Val	Glu	Glu	Lys	Leu	Glu	Ala	Pro	Asp	Ile	Asp	Leu	Asp
E>	3455			1643					1644					1644			_
	3456	Leu	Glu	Leu	Arg	Lys	Ile	Ile	Asn	Ile	Arg	Ala	Gly	Gly	Ser	Leu	Arg
E>	3457		164	50				1645	55				164	60			
	3458	Leu	Phe	Val	Pro	Ile	Lys	Gly	Arg	Pro	Thr	Pro	Glu	Val	Lys	Trp	Gly
E>	3459							70				1647					16480
	3460	Lys	Val	Asp	Gly	Glu	Ile	Arg	Asp	Ala	Ala	Ile	Ile	Asp	Val	Thr	Ser
E>	3461					1648					1649					1649	
	3462	Ser	Phe	Thr			Val	Leu				Asn	Arg	Tyr	Asp	Ser	Gly
E>	3463				1650					1650					1651		
	3464	Lys	Tyr			Thr	Leu	Glu			Ser	Gly	Thr	Lys	Ser	Ala	Phe
E>	3465			1651					1652					1652			
	3466				Arg	Val				Pro	Ser	Pro			Asn	Leu	Lys
E>	3467		165					1653					1654				
	3468			Glu	Ile	Thr			Ser	Val	Ser			Trp	Glu	Pro	
E>	3469			_	_ •		1655			_	_	1655			_		16560
	3470	Leu	Leu	Asp	Gly								Ile	Val	Glu	_	-
E>		~ 1				1656		_			1657			_	_	1657	-
	3472	Glu	Ala	Thr			Ser	Tyr	Ala			Val	Thr	Asn	-		Lys
E>	3473	7	G	m	1658		7	01 -	Ŧ	1658		~ 1	~	a	1659		mı
	3474	Asn	Ser			тте	Asp	Gin	Leu	GIN	GIU	GTÄ				Tyr	Phe
E>	3475	71 ~~ ~	177	1659	-			C1			т1.	C1		1660		~1	m1
	3476	Arg			Ата	GIU	ASII			етА	ше	стА			Ата	GIN	rnr
E>	3477	71.	1661		T1 -	T	17-1	1661		11-1	D	61	1662		C1	7	T1 -
	3478								GIU	vai	Pro			Pro	GIĀ	гàг	
E>	3479			71					7. ~ ~	C ~ ~	17-1	1663		C	m	m1	16640
₽>	3480	THE	vai	ASP	Аѕр			AIG	ASII	ser			ьeu	ser	LID		
E>	3481	Dr.	C1	u; ~	7 ~~	1664		00-	T	т1 ~	1665		т	т1-	17 ~ T	1665	_
F>	3483	FIO	GIU	UTS	1666		атА	Set	пур	1666		GIII	т Хт.	тте	1667		HEL
E>	3484	G1r	λ] ~	Tuc		-	Glu	Tuc	Ттт			Cvc	71.7	7~~		-	Sor
E>		G T 11	пта	1667		SET	GIU	пуз	1668		GIU	Cys	wra	1668		пуз	Ser
	2402			100	, ,				±000	, ,				1000	, ,		

	3486	Leu	Gln	Ala	Val	Ile	Thr	Asn	Leu	Thr	Gln	Gly	Glu	Glu	Tyr	Leu	Phe
E>	3487		1669	90				1669	95				1670	00			
	3488	Arq	Val	Val	Ala	Val	Asn	Glu	Lvs	Glv	Ara	Ser	Asp	Pro	Ara	Ser	Leu
E>	3489	1670	05				167	LO	-	-		1671	5		,		16720
_	3490			Pro	Tle				Asp	Len					Asn	Val	
F>	3491					1672		Lyc			1673		OLU	110	пор	167:	-
5 /	3492		777	Dho	Sor								Cln	7.00	T 011		
₩×	3493		ATa		1674					1674		GTA	GIII	Asp		-	TTE
E>			17 7		_			70				mı.	77 3 -	mı.	1675		
	3494		vai			ser	GTÀ				Pro	Thr	TTE		_	Thr	ьуs
E>	3495		~ 1	1679		_	_		1676		_		_	1676		_	_
	3496									Thr	Arg				Thr	Asp	Ser
E>	3497		1677					1677					1678				
	3498								Ile	Lys						Asp	Gly
E>	3499						1679					1679					16800
	3500	Gly	Gln	Tyr	Gly	Ile	Thr	Val	Ala	Asn	Val	Val	Gly	Gln	Lys	Thr	Ala
E>	3501					1680										1681	
	3502	Ser	Ile	Glu	Ile	Val	Thr	Leu	Asp	Lys	Pro	Asp	Pro	Pro	Lys	Gly	Pro
E>	3503				1682					1682					1683		
	3504	Val	Lys	Phe	Asp	Asp	Val	Ser	Ala	Glu	Ser	Ile	Thr	Leu	Ser	Trp	Asn
E>	3505			1683					1684					1684		•	
	3506	Pro							Cvs	Gln	Ile	Thr	Asn	Tvr	Ile	Val	Gln
E>	3507		1685		4			1685	_				1686	_			
	3508				Thr	Thr				Trp	Asp	Val			Ala	Thr	Val
E>	3509	1686	.,_ ₉	1106			168	70								****	16880
- /	3510	Δla	Ara	Thr	Thr	T.011	T.ve	Val								Glu	
			111.9	1111		1100	ت و ت	v u i	1111	Ll y J	шси	шys	1111	Gry	1111	OIU	1 Y T
E>						1688	25				1690	20				1600	36
E>			Dho	Λrα		1688		Clu	7) an		1689		Cln	Con	Dho	1689	
	3512	Gln	Phe		Ile	Phe	Ala		Asn	Arg	Tyr	Gly	Gln	Ser		Ala	
	3512 3513	Gln			Ile 1690	Phe 0	Ala			Arg 1690	Tyr)5	Gly			1691	Ala O	Leu
E>	3512 3513 3514	Gln Glu		Asp	Ile 169 0 Pro	Phe 0	Ala	Ala	Gln	Arg 169 0 Tyr	Tyr)5	Gly	Lys	Glu	1691 Pro	Ala O	Leu
E>	3512 3513 3514 3515	Gln Glu	Ser	Asp 169 1	Ile 1690 Pro . 5	Phe 00 Ile	Ala Val	Ala	Gln 169 2	Arg 169 0 Tyr 20	Tyr) 5 Pro	Gly Tyr	Lys	Glu 1692	1691 Pro 25	Ala O Gly	Leu Pro
E>	3512 3513 3514 3515 3516	Gln Glu Pro	Ser Gly	Asp 1691 Thr	Ile 1690 Pro 5 Pro	Phe 00 Ile Phe	Ala Val Ala	Ala Thr	Gln 1692 Ala	Arg 169 0 Tyr 20	Tyr) 5 Pro	Gly Tyr Lys	Lys Asp	Glu 1692 Ser	1691 Pro 25	Ala O Gly	Leu Pro
E>	3512 3513 3514 3515 3516 3517	Gln Glu Pro	Ser Gly 1693	Asp 1691 Thr	Ile 1690 Pro .5 Pro	Phe 00 Ile Phe	Ala Val Ala	Ala Thr 169 3	Gln 1692 Ala 85	Arg 1690 Tyr 20 Ile	Tyr)5 Pro Ser	Gly Tyr Lys	Lys Asp 1694	Glu 1692 Ser	1691 Pro 25 Met	Ala O Gly Val	Leu Pro Ile
E> E>	3512 3513 3514 3515 3516 3517 3518	Gln Glu Pro Gln	Ser Gly 1693 Trp	Asp 1691 Thr	Ile 1690 Pro .5 Pro	Phe OO Ile Phe Pro	Ala Val Ala Val	Ala Thr 1693 Asn	Gln 1692 Ala 85	Arg 1690 Tyr 20 Ile	Tyr)5 Pro Ser	Gly Tyr Lys Ser	Lys Asp 1694 Pro	Glu 1692 Ser	1691 Pro 25 Met	Ala O Gly Val	Leu Pro Ile Tyr
E> E>	3512 3513 3514 3515 3516 3517 3518 3519	Gln Glu Pro Gln 1694	Ser Gly 169 3 Trp	Asp 1691 Thr 30 His	Ile 1690 Pro 5 Pro	Phe OO Ile Phe Pro	Ala Val Ala Val 1695	Ala Thr 1693 Asn	Gln 1692 Ala 35 Asn	Arg 1690 Tyr 20 Ile Gly	Tyr)5 Pro Ser Gly	Gly Tyr Lys Ser 1695	Lys Asp 1694 Pro	Glu 1692 Ser IO Val	1691 Pro 25 Met	Ala O Gly Val Gly	Leu Pro Ile Tyr 16960
E> E> E>	3512 3513 3514 3515 3516 3517 3518 3519 3520	Gln Glu Pro Gln 1694	Ser Gly 169 3 Trp	Asp 1691 Thr 30 His	Ile 1690 Pro .5 Pro Glu	Phe 100 Ile Phe Pro Lys	Ala Val Ala Val 1695 Glu	Ala Thr 1693 Asn 0 Arg	Gln 1692 Ala 35 Asn Asn	Arg 1690 Tyr 20 Ile Gly Ser	Tyr 05 Pro Ser Gly Ile	Gly Tyr Lys Ser 1695 Leu	Lys Asp 1694 Pro 5 Trp	Glu 1692 Ser IO Val	1691 Pro 25 Met Ile Lys	Ala O Gly Val Gly	Leu Pro Ile Tyr 16960 Asn
E> E> E>	3512 3513 3514 3515 3516 3517 3518 3519 3520 3521	Gln Glu Pro Gln 1694 His	Ser Gly 1693 Trp I5 Leu	Asp 1691 Thr 30 His	Ile 1690 Pro .5 Pro Glu	Phe O Ile Phe Pro Lys 1696	Ala Val Ala Val 1695 Glu 55	Ala Thr 1693 Asn 60 Arg	Gln 1692 Ala 35 Asn Asn	Arg 1690 Tyr 20 Ile Gly Ser	Tyr D5 Pro Ser Gly Ile 1697	Tyr Lys Ser 1695 Leu	Lys Asp 1694 Pro 5	Glu 1692 Ser Wal Val	Pro Pro Met Ile	Ala O Gly Val Gly Val 1697	Leu Pro Ile Tyr 16960 Asn
E> E> E> E>	3512 3513 3514 3515 3516 3517 3518 3519 3520 3521 3522	Gln Glu Pro Gln 1694 His	Ser Gly 1693 Trp I5 Leu	Asp 1691 Thr 30 His Glu	Ile 1690 Pro .5 Pro Glu Arg	Phe O Ile Phe Pro Lys 1696	Ala Val Ala Val 1695 Glu 55	Ala Thr 1693 Asn 60 Arg	Gln 1692 Ala 35 Asn Asn Gln	Arg 1690 Tyr 20 Ile Gly Ser	Tyr D5 Pro Ser Gly Ile 1697 Lys	Tyr Lys Ser 1695 Leu	Lys Asp 1694 Pro 5	Glu 1692 Ser Wal Val	Pro 25 Met Ile Lys	Ala O Gly Val Gly Val Cly Cal	Leu Pro Ile Tyr 16960 Asn
E> E> E> E>	3512 3513 3514 3515 3516 3517 3518 3519 3520 3521 3522 3523	Gln Glu Pro Gln 1694 His	Ser Gly 1693 Trp 15 Leu Thr	Asp 1691 Thr 30 His Glu	Ile 1690 Pro .5 Pro Glu Arg Ile 1698	Phe O Ile Phe Pro Lys 1696 His	Ala Val Ala Val 1695 Glu 55 Asp	Ala Thr 1693 Asn 60 Arg	Gln 1692 Ala 35 Asn Asn Gln	Arg 1690 Tyr 20 Ile Gly Ser Phe 1698	Tyr D5 Pro Ser Gly Ile 1697 Lys	Gly Tyr Lys Ser 1695 Leu 0 Ala	Lys Asp 1694 Pro 5 Trp Gln	Glu 1692 Ser 10 Val Thr	Pro 5 Met Ile Lys Leu 1699	Ala O Gly Val Gly Val 1697 Glu 00	Leu Pro Ile Tyr 16960 Asn 5
E> E> E> E> E>	3512 3513 3514 3515 3516 3517 3518 3519 3520 3521 3522 3523 3524	Gln Glu Pro Gln 1694 His Lys Gly	Ser Gly 1693 Trp 15 Leu Thr	Asp 1691 Thr 30 His Glu Ile	Ile 1690 Pro .5 Pro Glu Arg Ile 1698 Tyr	Phe O Ile Phe Pro Lys 1696 His	Ala Val Ala Val 1695 Glu 55 Asp	Thr 1693 Asn 50 Arg Thr	Gln 1692 Ala 35 Asn Asn Gln	Arg 1690 Tyr 20 Ile Gly Ser Phe 1698 Tyr	Tyr 5 Pro Ser Gly Ile 1697 Lys S Ala	Gly Tyr Lys Ser 1695 Leu 0 Ala Glu	Lys Asp 1694 Pro 5 Trp Gln Asn	Glu 1692 Ser 10 Val Thr Asn	Pro 5 Met Ile Lys Leu 1699	Ala O Gly Val Gly Val 1697 Glu 00	Leu Pro Ile Tyr 16960 Asn 5
E> E> E> E> E>	3512 3513 3514 3515 3516 3517 3518 3519 3520 3521 3522 3523 3524 3525	Gln Glu Pro Gln 1694 His Lys Gly	Ser Gly 1693 Trp 15 Leu Thr	Asp 1691 Thr 30 His Glu Ile	Ile 1690 Pro .5 Pro Glu Arg Ile 1698 Tyr	Phe O Ile Phe Pro Lys 1696 His O Glu	Ala Val Ala Val 1695 Glu 55 Asp	Thr 1693 Asn 50 Arg Thr	Gln 1692 Ala 35 Asn Asn Gln Val	Arg 1690 Tyr 20 Ile Gly Ser Phe 1698 Tyr	Tyr 5 Pro Ser Gly Ile 1697 Lys 5 Ala	Gly Tyr Lys Ser 1695 Leu O Ala	Lys Asp 1694 Pro 5 Trp Gln Asn	Glu 1692 Ser 10 Val Thr Asn Ile	Pro Pro S5 Met Ile Lys Leu 1699 Val	Ala O Gly Val Gly Val 1697 Glu O Gly	Leu Pro Ile Tyr 16960 Asn 5 Glu Val
E> E> E> E> E>	3512 3513 3514 3515 3516 3517 3518 3519 3520 3521 3522 3523 3524	Gln Glu Pro Gln 1694 His Lys Gly	Ser Gly 1693 Trp 15 Leu Thr	Asp 1691 Thr 30 His Glu Ile	Ile 1690 Pro .5 Pro Glu Arg Ile 1698 Tyr	Phe O Ile Phe Pro Lys 1696 His O Glu	Ala Val Ala Val 1695 Glu 55 Asp	Thr 1693 Asn 50 Arg Thr	Gln 1692 Ala 35 Asn Asn Gln Val	Arg 1690 Tyr 20 Ile Gly Ser Phe 1698 Tyr	Tyr 5 Pro Ser Gly Ile 1697 Lys 5 Ala	Gly Tyr Lys Ser 1695 Leu O Ala	Lys Asp 1694 Pro 5 Trp Gln Asn	Glu 1692 Ser 10 Val Thr Asn Ile	Pro Pro S5 Met Ile Lys Leu 1699 Val	Ala O Gly Val Gly Val 1697 Glu O Gly	Leu Pro Ile Tyr 16960 Asn 5 Glu Val
E> E> E> E> E>	3512 3513 3514 3515 3516 3517 3518 3520 3521 3522 3523 3524 3525 3526 3527	Gln Glu Pro Gln 1694 His Lys Gly Gly	Ser Gly 1693 Trp 15 Leu Thr Ile Lys 1701	Asp 1691 Thr 30 His Glu Ile Glu 1699 Ala	Ile 1690 Pro .5 Pro Glu Arg Ile 1698 Tyr Ser	Phe O O Ile Phe Pro Lys 1696 His O Glu Lys	Ala Val Ala Val 1695 Glu 55 Asp Phe Asn	Thr 1693 Asn 60 Arg Thr Arg Ser 1701	Gln 1692 Ala 35 Asn Asn Gln Val 1700 Glu	Arg 1690 Tyr 20 Ile Gly Ser Phe 1698 Tyr 00 Cys	Tyr D5 Pro Ser Gly Ile 1697 Lys S5 Ala	Gly Tyr Lys Ser 1695 Leu 0 Ala Glu Val	Lys Asp 1694 Pro 5 Trp Gln Asn Ala 1702	Glu 1692 Ser 10 Val Thr Asn Ile 1700 Arg	Pro Pro S Met Ile Lys Leu 1699 Val S Asp	Ala O Gly Val Gly Val 1697 Glu O Gly Pro	Leu Pro Ile Tyr 16960 Asn 5 Glu Val Cys
E> E> E> E> E>	3512 3513 3514 3515 3516 3517 3518 3520 3521 3522 3523 3524 3525 3526 3527	Gln Glu Pro Gln 1694 His Lys Gly Gly	Ser Gly 1693 Trp 15 Leu Thr Ile Lys 1701	Asp 1691 Thr 30 His Glu Ile Glu 1699 Ala	Ile 1690 Pro .5 Pro Glu Arg Ile 1698 Tyr Ser	Phe O O Ile Phe Pro Lys 1696 His O Glu Lys	Ala Val Ala Val 1695 Glu 55 Asp Phe Asn	Thr 1693 Asn 60 Arg Thr Arg Ser 1701	Gln 1692 Ala 35 Asn Asn Gln Val 1700 Glu	Arg 1690 Tyr 20 Ile Gly Ser Phe 1698 Tyr 00 Cys	Tyr D5 Pro Ser Gly Ile 1697 Lys S5 Ala	Gly Tyr Lys Ser 1695 Leu 0 Ala Glu Val	Lys Asp 1694 Pro 5 Trp Gln Asn Ala 1702	Glu 1692 Ser 10 Val Thr Asn Ile 1700 Arg	Pro Pro S Met Ile Lys Leu 1699 Val S Asp	Ala O Gly Val Gly Val 1697 Glu O Gly Pro	Leu Pro Ile Tyr 16960 Asn 5 Glu Val Cys
E> E> E> E> E> E>	3512 3513 3514 3515 3516 3517 3518 3520 3521 3522 3523 3524 3525 3526	Gln Glu Pro Gln 1694 His Lys Gly Gly Asp	Ser Gly 1693 Trp 15 Leu Thr Ile Lys 1701 Pro	Asp 1691 Thr 30 His Glu Ile Glu 1699 Ala	Ile 1690 Pro .5 Pro Glu Arg Ile 1698 Tyr .5 Ser	Phe O O Ile Phe Pro Lys 1696 His O Glu Lys Thr	Ala Val Ala Val 1695 Glu 55 Asp Phe Asn Pro	Thr 1693 Asn 30 Arg Thr Arg Ser 1701 Glu	Gln 1692 Ala 35 Asn Asn Gln Val 1700 Glu	Arg 1690 Tyr 20 Ile Gly Ser Phe 1698 Tyr 00 Cys	Tyr 5 Pro Ser Gly Ile 1697 Lys 5 Ala Tyr Met	Tyr Lys Ser 1695 Leu O Ala Glu Val	Lys Asp 1694 Pro 5 Trp Gln Asn Ala 1702 Lys	Glu 1692 Ser 10 Val Thr Asn Ile 1700 Arg	Pro Pro S Met Ile Lys Leu 1699 Val S Asp	Ala O Gly Val Gly Val 1697 Glu O Gly Pro	Leu Pro Ile Tyr 16960 Asn 5 Glu Val Cys
E> E> E> E> E> E>	3512 3513 3514 3515 3516 3517 3518 3519 3520 3521 3522 3523 3524 3525 3526 3527 3528 3529	Gln Glu Pro Gln 1694 His Lys Gly Gly Asp	Gly 1693 Trp 15 Leu Thr Ile Lys 1701 Pro	Asp 1691 Thr 30 His Glu Ile Glu 1699 Ala	Ile 1690 Pro .5 Pro Glu Arg Ile 1698 Tyr Ser Gly	Phe O Ile Phe Pro Lys 1696 His Glu Lys Thr	Ala Val Ala Val 1695 Glu 55 Asp Phe Asn Pro 1703	Thr 1693 Asn 60 Arg Thr Arg Ser 1701 Glu	Gln 1692 Ala 35 Asn Asn Gln Val 1700 Glu 5 Pro	Arg 1690 Tyr 20 Ile Gly Ser Phe 1698 Tyr O Cys	Tyr 5 Pro Ser Gly Ile 1697 Lys Ala Tyr Met	Tyr Lys Ser 1695 Leu O Ala Glu Val Val	Asp 1694 Pro 5 Trp Gln Asn Ala 1702 Lys	Glu 1692 Ser 10 Val Thr Asn Ile 1700 Arg	Pro Pro S5 Met Ile Lys Leu 1699 Val S5 Asp	Ala O Gly Val Gly Val 1697 Glu O Gly Pro	Leu Pro Ile Tyr 16960 Asn 5 Glu Val Cys Ile 17040
E> E> E> E> E> E> E>	3512 3513 3514 3515 3516 3517 3518 3520 3521 3522 3523 3524 3525 3526 3527 3528	Gln Glu Pro Gln 1694 His Lys Gly Gly Asp	Gly 1693 Trp 15 Leu Thr Ile Lys 1701 Pro	Asp 1691 Thr 30 His Glu Ile Glu 1699 Ala	Ile 1690 Pro .5 Pro Glu Arg Ile 1698 Tyr .5 Ser Gly Trp	Phe O Ile Phe Pro Lys 1696 His Glu Lys Thr	Ala Val Ala Val 1695 Glu 5 Asp Phe Asn Pro 1703 Lys	Thr 1693 Asn 60 Arg Thr Arg Ser 1701 Glu	Gln 1692 Ala 35 Asn Asn Gln Val 1700 Glu 5 Pro	Arg 1690 Tyr 20 Ile Gly Ser Phe 1698 Tyr 00 Cys Ile	Tyr 5 Pro Ser Gly Ile 1697 Lys Ala Tyr Met	Tyr Lys Ser 1695 Leu O Ala Glu Val Val 1703 Gly	Asp 1694 Pro 5 Trp Gln Asn Ala 1702 Lys	Glu 1692 Ser 10 Val Thr Asn Ile 1700 Arg	Pro Pro S5 Met Ile Lys Leu 1699 Val S5 Asp	Ala O Gly Val Gly Val 1697 Glu O Gly Pro	Leu Pro Ile Tyr 16960 Asn 5 Glu Val Cys Ile 17040 Thr
E> E> E> E> E> E> E>	3512 3513 3514 3515 3516 3517 3518 3520 3521 3522 3523 3524 3525 3526 3527 3528 3529 3530 3531	Gln Glu Pro Gln 1694 His Lys Gly Gly Asp 1702 Thr	Gly 1693 Trp 15 Leu Thr Ile Lys 1701 Pro	Asp 1691 Thr 30 His Glu Ile Glu 1699 Ala 10 Pro	Ile 1690 Pro .5 Pro Glu Arg Ile 1698 Tyr Ser Gly Trp	Phe O Ile Phe Pro Lys 1696 His O Glu Lys Thr	Ala Val Ala Val 1695 Glu 5 Asp Phe Asn Pro 1703 Lys	Thr 1693 Asn 60 Arg Thr Arg Ser 1701 Glu 80 Pro	Gln 1692 Ala 35 Asn Asn Gln Val 1700 Glu 5 Pro	Arg 1690 Tyr 20 Ile Gly Ser Phe 1698 Tyr O Cys Ile Tyr	Tyr 5 Pro Ser Gly Ile 1697 Lys Ala Tyr Met Asp	Tyr Lys Ser 1695 Leu O Ala Glu Val Val 1703 Gly	Asp 1694 Pro 5 Trp Gln Asn Ala 1702 Lys Gly	Glu 1692 Ser 10 Val Thr Asn Ile 1700 Arg O Arg	Pro Pro 5 Met Ile Lys Leu 1699 Val Asp Asn	Ala O Gly Val Gly Val 1697 Glu O Gly Pro Glu Ile	Leu Pro Ile Tyr 16960 Asn Glu Val Cys Ile 17040 Thr
E> E> E> E> E> E> E>	3512 3513 3514 3515 3516 3517 3518 3520 3521 3522 3523 3524 3525 3526 3527 3528 3529 3530 3531 3532	Gln Glu Pro Gln 1694 His Lys Gly Gly Asp 1702 Thr	Gly 1693 Trp 15 Leu Thr Ile Lys 1701 Pro	Asp 1691 Thr 30 His Glu Ile Glu 1699 Ala 10 Pro	Ile 1690 Pro .5 Pro Glu Arg Ile 1698 Tyr Ser Gly Trp	Phe O Ile Phe Pro Lys 1696 His O Glu Lys Thr Thr 1704	Ala Val Ala Val 1695 Glu 5 Asp Phe Asn Pro 1703 Lys	Thr 1693 Asn 60 Arg Thr Arg Ser 1701 Glu 80 Pro	Gln 1692 Ala 35 Asn Asn Gln Val 1700 Glu 5 Pro	Arg 1690 Tyr 20 Ile Gly Ser Phe 1698 Tyr 00 Cys Ile Tyr Leu	Tyr 5 Pro Ser Gly Ile 1697 Lys S Ala Tyr Met Asp 1705 Pro	Tyr Lys Ser 1695 Leu O Ala Glu Val Val 1703 Gly	Asp 1694 Pro 5 Trp Gln Asn Ala 1702 Lys Gly	Glu 1692 Ser 10 Val Thr Asn Ile 1700 Arg O Arg Ser	Pro Pro S Met Ile Lys Leu 1699 Val S Asp Asn Met	Ala O Gly Val Gly Val 1697 Glu O Gly Pro Glu Ile 1705 Met	Leu Pro Ile Tyr 16960 Asn Glu Val Cys Ile 17040 Thr
E> E> E> E> E> E> E>	3512 3513 3514 3515 3516 3517 3518 3520 3521 3522 3523 3524 3525 3526 3527 3528 3529 3530 3531	Gln Glu Pro Gln 1694 His Lys Gly Gly Asp 1702 Thr	Gly 1693 Trp 15 Leu Thr Ile Lys 1701 Pro 25 Leu Tyr	Asp 1691 Thr 30 His Glu Ile Glu 1699 Ala 10 Pro Gln	Ile 1690 Pro .5 Pro Glu Arg Ile 1698 Tyr Ser Gly Trp Val 1706	Phe O Ile Phe Pro Lys 1696 His O Glu Lys Thr Thr 1704 Glu O	Ala Val Ala Val 1695 Glu 5 Asp Phe Asn Pro 1703 Lys Lys	Thr 1693 Asn 60 Arg Thr Arg Ser 1701 Glu 80 Pro	Gln 1692 Ala 35 Asn Asn Gln Val 1700 Glu 5 Pro Val Asp	Arg 1690 Tyr 20 Ile Gly Ser Phe 1698 Tyr 00 Cys Ile Tyr Leu 1706	Tyr 5 Pro Ser Gly Ile 1697 Lys Ala Tyr Met Asp 1705 Pro 5	Tyr Lys Ser 1695 Leu O Ala Glu Val Val 1703 Gly O Asp	Asp 1694 Pro 5 Trp Gln Asn Ala 1702 Lys Gly Gly	Glu 1692 Ser 10 Val Thr Asn Ile 1700 Arg O Arg Ser	Pro Pro S Met Ile Lys Leu 1699 Val S Asp Asn Met	Ala O Gly Val Gly Val 1697 Glu O Gly Pro Glu Ile 1705 Met	Leu Pro Ile Tyr 16960 Asn 5 Glu Val Cys Ile 17040 Thr 55 Lys

E>	3535			170	75				1708	30				1708	35		
	3536	Thr	Glu	Asp	Gln	Arg	Tyr	Glu	Phe	Arg	Val	Ile	Ala	Lys	Asn	Ala	Ala
E>	3537		1709					170					1710				
	3538	Gly	Ala	Ile	Ser	Lys	Pro	Ser	Asp	Ser	Thr	Gly	Pro	Ile	Thr	Ala	Lys
E>	3539	1710	05				171:	10				171:	15				17120
	3540	Asp	Glu	Val	Glu	Leu	Pro	Arg	Ile	Ser	Met	Asp	Pro	Lys	Phe	Arg	Asp
E>	3541					1712	25				1713	30				1713	35
	3542	Thr	Ile	Val	Val	Asn	Ala	Gly	Glu	Thr	Phe	Arg	Leu	Glu	Ala	Asp	Val
E>	3543				1714					171					1715		
	3544	His	Gly	Lys	Pro	Leu	Pro	Thr	Ile	Glu	Trp	Leu	Arg	Gly	Asp	Lys	Glu
E>	3545			171	-				171					171			
	3546	Ile	Glu	Glu	Ser	Ala	Arg	Cys	Glu	Ile	Lys	Asn	Thr	Asp	Phe	Lys	Ala
E>	3547		1717	-				171					1718				
	3548	Leu	Leu	Ile	Val				Ile	Arg	Ile	Asp	Gly	Gly	Gln	Tyr	Ile
E>	3549						1719					1719	-				17200
	3550	Leu	Arg	Ala	Ser			Ala	Gly	Ser	Lys	Ser	Phe	Pro	Val	Asn	Val
E>	3551					1720					172:					172:	
	3552	Lys	Val	Leu		Arg	Pro	Gly	Pro					Val	Gln	Val	Thr
E>	3553				1722	20		_			25				1723		
	3554		Val			Glu	Lys	Cys			Thr	Trp	Ser			Leu	Gln
E>	3555			1723					1724					1724			
	3556									-					Arg	Glu	Thr
E>	3557												1726				
	3558		-	Leu	Ala	_			Val	Ala	Ser			Val	Thr	Asn	
E>	3559						172					172					17280
	3560	Leu	Lys	Val	Thr			Leu	Glu	_			Tyr	Val	Phe		
E>	3561		_			1728					1729		_			1729	
	3562	Met	Ala	Val			Tyr	Gly	Val			Pro	Leu	Glu			Pro
E>	3563				1730		_			1730			_	_	173		_
	3564	Val	Leu		_	Asn	Pro								-	Ser	Leu
E>	3565			173										1732		_ /	_
	3566	Glu			Asn	lle				Ser	Met	Thr		_	Trp	Asn	Arg
E>	3567	_	1733		_	~ 1		1733		1	- 1		1734			~ 1	_
	3568								Glu	ile	TTe			11e	Val		
E>	3569				~					T1 .	.	1735	-	-	70		17360
	3570	Arg	Asp	Arg	Ser			Arg	Trp				Asn	гÀг	Arg		
E>	3571	Шb м	71 000	T 0.11	71	1730		17.0.7	mb ~		173		C1	71	114.0	173	-
m .	3572	Thr	Asp				Arg	vai	Int			THE	GIU				Tyr
E>	3573	C1	Dh -		1738					1738		C1	1107		1739	-	Cam
	3574	GIU	rne	-		261	нта	GIU			Ата	стХ	vai	1740		PIO	Ser
ピーーン	3575	Dwa	7.1.	1739		П	т	T ***	1740		7 00	Dwa	17-1			Dwa	C1
	3576 3577	Pro						ப்ys 1743	ATA	Cys	Asp	Pro	1742		rys	Pro	GTA
E>	3578	Dwo	1741						V-1	7 00	Th.∽	mh w			Cor	тіс	The
				THE	ASII	ALA			val	Asp	1111	1743		ASII	ser	TIE	17440
ューフ	3579 3580			Ф~~	G1	T 110	1743		ጥ‹‹›	Δας	C1			Clu	Tla	Lon	
r>	3580 3581	neu	WTG	ıτb	GTÅ	ьуs 1744		тте	TAT	nsp	174!		Set	GIU	TTG	174!	
<u></u>	3582	ጥኒንም	Wal	Wa 1	G111			Luc	Δl >	Δας			Glii	Тиг	Gln		
E>	3583	7 A T	۷ат	AGT	174		Cys	пЛэ	ura	174		ULU	JIU	111	174		4 G T
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 RAW SEQUENCE LISTING
 DATE: 05/30/2001

 PATENT APPLICATION: US/09/759,508A
 TIME: 11:49:02

	3584		Pro											Ile	Ser	Lys	Leu
E>	3585				75									1748			
	3586				Gln	Glu				Arg	Val				Asn	Lys	Val
E>	3587		1749					1749					1750				
	3588															Glu	
E>	3589							10									17520
	3590	Lys	Leu	Glu				Leu	Asp				Glu	Leu	-	_	_
E>	3591					1752					175					1753	
	3592		Val											Ile			Lys
E>	3593														175		
	3594					Pro	Glu				Ser	Arg				Glu	Phe
E>	3595			175					175					1756			
	3596							Glu	Lys	Gly	Val	Asn			Gln	Leu	Ser
E>	3597			70					75				1758				
	3598								Asp	Ala	Gly			Ile	Leu		
E>	3599		35				1759	90		_		1759					17600
	3600	Glu	Asn	Ser	Ser	Gly	Ser	Lys	Ser	Ala			Thr	Val	Lys		
E>	3601					1760)5			_	176		_			1761	
_	3602		Thr									Val	Lys				Lys
E>	3603		_		1762			_							1763		
	3604	_											He		-	GLy	Ala
E>	3605			1763					1764				_	1764		_	
	3606								Asp	гàг	Arg	Glu			Arg	гàг	Ala
E>	3607							176	55	_			1760		_		-1
_	3608					Ser	Ser	Lys	Cys	Ser	Lys					Val	
E>	3609					6 1	176	70	m	m	D.I	1767		34.1		61	17680
	3610	Asn	Leu	Thr				TTE	Tyr								
E>		C1	DL -	C1		1768		D	17.0 1			90				1769	-
	3612	GIU	Pne	GIÀ								val	Asp	Ала			Ala
E>	3613	70.7 -	G1	D				D		1770		ml _{n an}	7	mb	177:		C
	3614			177		ser	Pro	Pro	1772			rnr				val	ser
E>	3615 3616					C0.20	T 011	Mot								C1.,	C1.,
E>	3617	GIII		30 3er			rea	177	3 5	GLU	riña	PIO	1774		ASP	GTĀ	GTA
E/	3618	Sor					Tur							-	Glv	Thr	Gla
F>	3619		71.Y	var	цец	Gry	+y⊥ 177	50 50				1775		_	Сту		17760
B>	3620																
P>	3621	цуз	ттЪ	Set	116			Gru			177		ASII	лта	Val	1777	
E/	3622	Clv	T. 211	Sor	Ser								Val	Lus	Δ1 a		-
F>	3623		пец		1778		OTII	Olu		1778		my	val		1779		71011
E>	3624		Luc				Aen	Pro				Glv	Val			-	Δla
P>	3625	Giu		1779		Set	лэр		1780				Val	1780		110	7114
E>	3626	Luc				Tla	Gln						Pro			Thr	Tur
F>	3627		178:					178:		пси	цуз	пси	1782		71011	1111	1 Y L
E>	3628									T.vc	Tle	Glu			Val	Tle	Gly
E	3629			CTII	1170		1783			шуз		1783		110	vu_	110	17840
	3630			Ara	Pro									Glu	Pro	Leu	
E>	3631	1+4 Y	110	*** 9	110	1784		001		· u _	178			Olu		1789	
<u> </u>	3632	Gln	Thr	Thr	Ara			Val	Glu	Glii		-					-
	3032	- T11		****	9	• 44.4		• 41	CLU	Jru			****				204

E>	3633				178					178					178		
	3634	His	Ile	Lys	Glu	Gly	Asn	Lys	Asp	Asp	Phe	Gly	Lys	Tyr	Thr	Val	Thr
E>	3635			178					178			-	-	178			
	3636	Ala	Thr	Asn	Ser	Ala	Gly	Thr	Ala	Thr	Glu	Asn	Leu	Ser	Val	Ile	Val
E>	3637		178	90				1789	95				179	00			
	3638	Leu	Glu	Lys	Pro	Gly	Pro	Pro	Val	Gly	Pro	Val	Arg	Phe	Asp	Glu	Val
E>	3639			_		_	179	10		_		179:			-		17920
	3640	Ser	Ala	Asp	Phe	Val	Val	Ile	Ser	Trp	Glu	Pro	Pro	Ala	Tyr	Thr	Gly
E>	3641					1792					179				_	1793	_
	3642	Gly	Cys	Gln	Ile	Ser	Asn	Tyr	Ile	Val	Glu	Lys	Arg	Asp	Thr	Thr	Thr
E>	3643				1794					1794					179		
	3644	Thr	Thr	Trp	His	Met	Val	Ser	Ala	Thr	Val	Ala	Arg	Thr	Thr	Ile	Lys
E>	3645			179					179				_	179			-
	3646	Ile	Thr	Lys	Leu	Lys	Thr	Gly	Thr	Glu	Tyr	Gln	Phe	Arg	Ile	Phe	Ala
E>	3647		179	70				179	75		_		1798	30			
	3648	Glu	Asn	Arg	Tyr	Gly	Lys	Ser	Ala	Pro	Leu	Asp	Ser	Lys	Ala	Val	Ile
E>	3649	1798	35				179	90				1799	95				18000
	3650	Val	Gln	Tyr	Pro	Phe	Lys	Glu	Pro	Gly	Pro	Pro	Gly	Thr	Pro	Phe	Val
E>						1800					180					1801	
	3652	Thr	Ser	Ile	Ser	Lys	Asp	Gln	Met	Leu	Val	Gln	Trp	His	Glu	Pro	Val
E>					1802					1802					1803		
	3654	Asn	Asp	Gly	Gly	Thr	Lys	Ile	Ile	Gly	Tyr	His	Leu	Glu	Gln	Lys	Glu
E>				180					1804					1804	-		
	3656	Lys	Asn	Ser	Ile	Leu	Trp	Val	Lys	Leu	Asn	Lys	Thr	Pro	Ile	Gln	Asp
E>			180					180					1806				*.
	3658													Glu	Tyr	Glu	Phe
E>	3659						180					1807	_				18080
	3660	Lys	Val	Ser	Ala	Glu	Asn	Ile	Val	Gly	Ile	Gly	Lys	Pro	Ser	Lys	Val
E>						1808					1809	-				1809	-
	3662	Ser	Glu	Cys	Phe	Val									Gly	Arg	Pro
E>					1810					1810					1811		
	3664	Glu	Ala			Ile	Thr	Arg			Val	Thr	Leu		_	Lys	Lys
E>				181:					1812					1812			
	3666	Pro								Ile	Thr				Val	Glu	Lys
E>			1813					1813					1814				
	3668			Leu	Pro	_		_	Trp	Met	_			Phe	Thr	Asn	
E>	3669		_				1815		_			1815		_			18160
	3670	Leu	Glu	Thr	GLu			Val	Ser				Glu	Asp	Gln	-	_
E>				_		1816		_	_		181		_			1817	
	3672	Glu	Phe	Arg			Ala	Arg	Asn			Gly	Asn	Phe			Pro
E>			_	_	1818	-				1818	-	_			1819	-	
		Ser	Asp								Arg	Asp	Glu			Ala	Pro ·
E>		_		1819			_		1820		_			1820	_	•	
	3676	Asn			Leu	Asp	Pro			Lys	Asp	Val			Val	His	Ala
E>		0.3	1823		D)	77. 3	.	1821	_	-	. .		1822		_	~ 1	_
	3678								Ala	Asp	TTe			ьуs	Pro	TTe	
E>	3679			17-1			1823		C3	T	03	1823		O2	mı.	70.7	18240
TO .	3680	ASP	vaı	vaı	rrp			Asp	етА	гуѕ			GIU	GIU	rnr		
E>	2081					1824	45				1825	O				1825	2

E>	3682 3683	Arg	Met	Glu	Ile 1826		Ser	Thr	Ile	Gln 182 6	_	Thr	Thr	Leu	Val 1827		Lys
<u> </u>	3684	Aen	Cve	T۱۵			Aen	Clu	Clar			Tla	T 011	Turs			Nan
E>	3685		Cys	182		1111			1828		ıyı	116	пец	1828		261	ASII
	3686	Val	Gly	Gly	Thr	Lys	Ser	Ile	Pro	Ile	Thr	Val	Lys	Val	Leu	Asp	Arq
E>	3687		1829			_		1829					1830			•	,
	3688	Pro	Gly	Ser	Pro	Glu	Gly	Pro	Leu	Lys	Val	Thr	Gly	Val	Thr	Ala	Glu
E>	3689						183			_		1831					18320
	3690	Lys	Cys	Tyr	Leu	Ala	Trp	Asn	Pro	Pro	Leu	Gln	Asp	Gly	Gly	Ala	Asn
E>	3691	_	_	-		1832					1833		•	-	-	183	
	3692	Ile	Ser	His	Tyr	Ile	Ile	Glu	Lys	Arg	Glu	Thr	Ser	Arg	Leu	Ser	Trp
E>	3693				1834	10				1834	15			_	1835	50	-
	3694	Thr	Gln	Val	Ser	Thr	Glu	Val	Gln	Ala	Leu	Asn	Tyr	Lys	Val	Thr	Lys
E>	3695			1835					1836					1836			
	3696	Leu	Leu	Pro	Gly	Asn	Glu	Tyr	Ile	Phe	Arg	Val	Met	Ala	Val	Asn	Lys
E>	3697		183,7					1837	_				1838				
	3698	Tyr					Pro	Leu	Glu	Ser	Gly	Pro	Val	Thr	Ala	Cys	Asn
E>	3699						1839					1839					18400
	3700	Pro	Tyr	Lys	Pro	Pro	Gly	Pro	Pro				Glu	Val	Ser	Ala	Ile
E>						1840					1841					184	
	3702		Lys	Asp			Val	Val	Thr			Arg	Pro	Val	_	-	Gly
E>	3703				1842					1842					1843		
	3704	Gly	Thr			Glu	Gly				Glu	Lys	Arg			Glu	Gly
E>	3705		_	1843	-	_	_		1844			_		1844		_	
-	3706				Thr	глs	Cys							_	Leu	Arg	Leu
E>	3707		1845		01	Ŧ	m1	1845	21	***	0 -	m	1846				
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E>	3710			λan	ת 1 ת		1847		C1	C1.,		1847		Dro	Cor	W-1	18480
E>								νaı	GTA	GIU	LIO	Ser	Glu	LIO			
	3711		GIU	11511	711.0		_				1940				DCI		35
						1848	35		Tvr		1849 Pro	90				1849	-
	3712			Ala	Cys	1848 Asp	35		_	Pro	Pro	90			Ser	184 9 Asn	-
E>	3712 3713	Tyr	Arg	Ala	Cys 185 0	1848 Asp 00	35 Ala	Leu	_	Pro 185 0	Pro	OGly	Pro	Pro	Ser 1851	1849 Asn .0	Pro
	3712 3713 3714	Tyr Lys	Arg	Ala	Cys 185 0 Asp	1848 Asp 00	35 Ala	Leu Arg	_	Pro 185 0 Ser	Pro	OGly	Pro	Pro	Ser 1851 Trp	1849 Asn .0	Pro
E>	3712 3713 3714 3715	Tyr Lys	Arg Val	Ala Thr 1851	Cys 1850 Asp	1848 Asp 00 Thr	Ala Ser	Leu Arg	Ser 1852	Pro 185 0 Ser	Pro) 5 Val	Gly Ser	Pro Leu	Pro Ala 1852	Ser 1851 Trp	1849 Asn 10 Ser	Pro
E>	3712 3713 3714 3715 3716 3717	Tyr Lys Pro	Arg Val Ile 1853	Ala Thr 1851 Tyr 30	Cys 1850 Asp S Asp	1848 Asp 00 Thr	Ser Gly	Leu Arg Ala 1853	Ser 1852 Pro	Pro 1850 Ser !0 Val	Pro)5 Val Lys	Gly Ser Gly	Pro Leu Tyr 1854	Pro Ala 1852 Val	Ser 1851 Trp ?5 Val	1849 Asn O Ser Glu	Pro Lys Val
E>	3712 3713 3714 3715 3716	Tyr Lys Pro	Arg Val Ile 1853	Ala Thr 1851 Tyr 30	Cys 1850 Asp S Asp	1848 Asp 00 Thr	Ser Gly	Leu Arg Ala 1853	Ser 1852 Pro	Pro 1850 Ser !0 Val	Pro)5 Val Lys	Gly Ser Gly	Pro Leu Tyr 1854	Pro Ala 1852 Val	Ser 1851 Trp ?5 Val	1849 Asn O Ser Glu	Pro Lys Val
E>	3712 3713 3714 3715 3716 3717 3718 3719	Tyr Lys Pro Lys 1854	Arg Val Ile 1853 Glu	Ala Thr 1851 Tyr 30 Ala	Cys 1850 Asp S Asp	Asp Oo Thr Gly	Ser Gly Asp	Leu Arg Ala 1853 Glu	Ser 1852 Pro S5 Trp	Pro 1850 Ser 0 Val	Pro D5 Val Lys Thr	Gly Ser Gly Cys 1855	Pro Leu Tyr 1854 Thr	Pro Ala 1852 Val Val Pro	Ser 1851 Trp ?5 Val Pro	Asn O Ser Glu	Pro Lys Val Gly 18560
E> E> E>	3712 3713 3714 3715 3716 3717 3718 3719 3720	Tyr Lys Pro Lys 1854	Arg Val Ile 1853 Glu	Ala Thr 1851 Tyr 30 Ala	Cys 1850 Asp .5 Asp Ala	Asp OO Thr Gly Ala	Ser Gly Asp 1855 Phe	Leu Arg Ala 1853 Glu	Ser 1852 Pro S5 Trp	Pro 1850 Ser 0 Val Thr	Pro 05 Val Lys Thr	Gly Ser Gly Cys 1855	Pro Leu Tyr 1854 Thr	Pro Ala 1852 Val Val Pro	Ser 1851 Trp ?5 Val Pro	Asn O Ser Glu	Pro Lys Val Gly 18560
E> E>	3712 3713 3714 3715 3716 3717 3718 3719 3720 3721	Tyr Lys Pro Lys 1854	Arg Val Ile 1853 Glu 15 Gln	Ala Thr 1851 Tyr 30 Ala Gly	Cys 1850 Asp .5 Asp Ala	Asp OO Thr Gly Ala Gln 1856	Ala Ser Gly Asp 1855 Phe	Leu Arg Ala 1853 Glu 50 Thr	Ser 1852 Pro 35 Trp	Pro 1850 Ser O Val Thr	Pro D5 Val Lys Thr Lys 1857	Gly Ser Gly Cys 1855 Leu	Pro Leu Tyr 1854 Thr 5	Pro Ala 1852 Val O Pro Glu	Ser 1851 Trp 25 Val Pro	Asn O Ser Glu Thr Thr	Pro Lys Val Gly 18560 Glu 75
E> E> E> E>	3712 3713 3714 3715 3716 3717 3718 3719 3720 3721 3722	Tyr Lys Pro Lys 1854 Leu Tyr	Arg Val Ile 1853 Glu 15 Gln	Ala Thr 1851 Tyr 30 Ala Gly	Cys 1850 Asp 5 Asp Ala Lys	Asp OO Thr Gly Ala Gln 1856 Ile	Ala Ser Gly Asp 1855 Phe 55 Cys	Leu Arg Ala 1853 Glu 50 Thr	Ser 1852 Pro 35 Trp Val	Pro 1850 Ser O Val Thr Asn	Pro D5 Val Lys Thr Lys 1857 Ser	Gly Ser Gly Cys 1855 Leu	Pro Leu Tyr 1854 Thr 5	Pro Ala 1852 Val O Pro Glu	Ser 1851 Trp 25 Val Pro Asn	Asn O Ser Glu Thr Thr 1857 Glu	Pro Lys Val Gly 18560 Glu 75
E> E> E>	3712 3713 3714 3715 3716 3717 3718 3719 3720 3721 3722 3723	Tyr Lys Pro Lys 1854 Leu Tyr	Arg Val Ile 1853 Glu 15 Gln Asn	Thr 1851 Tyr 30 Ala Gly	Cys 1850 Asp 5 Asp Ala Lys Arg	Asp 00 Thr Gly Ala Gln 1856 Ile	Asp Asp 1855 Phe 55 Cys	Leu Arg Ala 1853 Glu 50 Thr	Ser 1852 Pro 35 Trp Val	Pro 1850 Ser O Val Thr Asn 1858	Pro D5 Val Lys Thr Lys 1857 Ser	Gly Ser Gly Cys 1855 Leu O Glu	Pro Leu Tyr 1854 Thr 5 Lys Gly	Pro Ala 1852 Val O Pro Glu Val	Ser 1851 Trp 25 Val Pro Asn Gly 1859	Asn O Ser Glu Thr Thr 1857 Glu	Pro Lys Val Gly 18560 Glu 75 Pro
E> E> E> E>	3712 3713 3714 3715 3716 3717 3718 3719 3720 3721 3722 3723 3724	Tyr Lys Pro Lys 1854 Leu Tyr	Arg Val Ile 1853 Glu 15 Gln Asn	Thr 1851 Tyr 30 Ala Gly Phe Leu	Cys 1850 Asp 5 Asp Ala Lys Arg 1856 Pro	Asp 00 Thr Gly Ala Gln 1856 Ile	Asp Asp 1855 Phe 55 Cys	Leu Arg Ala 1853 Glu 50 Thr Ala Val	Ser 1852 Pro 35 Trp Val Ile	Pro 1850 Ser 0 Val Thr Asn 1858 Ala	Pro D5 Val Lys Thr Lys 1857 Ser	Gly Ser Gly Cys 1855 Leu O Glu	Pro Leu Tyr 1854 Thr 5 Lys Gly Arg	Pro Ala 1852 Val O Pro Glu Val	Ser 1851 Trp 25 Val Pro Asn Gly 1859 Glu	Asn O Ser Glu Thr Thr 1857 Glu	Pro Lys Val Gly 18560 Glu 75 Pro
E> E> E> E>	3712 3713 3714 3715 3716 3717 3718 3719 3720 3721 3722 3723 3724 3725	Tyr Lys Pro Lys 1854 Leu Tyr Ala	Arg Val Ile 1853 Glu 15 Gln Asn Thr	Thr 1851 Tyr 30 Ala Gly Phe Leu	Cys 1850 Asp 5 Asp Ala Lys Arg 1856 Pro	Asp OO Thr Gly Ala Gln 1856 Ile OGly	Ser Gly Asp 1855 Phe 55 Cys Ser	Leu Arg Ala 1853 Glu 50 Thr Ala Val	Ser 1852 Pro 35 Trp Val Ile Val 1860	Pro 1850 Ser Val Thr Asn 1858 Ala	Pro Pro Thr Lys 1857 Ser Gln	Gly Ser Gly Cys 1855 Leu Glu Glu	Pro Leu Tyr 1854 Thr 5 Lys Gly Arg	Pro Ala 1852 Val O Pro Glu Val Ile 1860	Ser 1851 Trp 25 Val Pro Asn Gly 1859 Glu	Asn O Ser Glu Thr Thr 1857 Glu O Pro	Pro Lys Val Gly 18560 Glu 75 Pro
E> E> E> E> E>	3712 3713 3714 3715 3716 3717 3718 3719 3720 3721 3722 3723 3724 3725 3726	Tyr Lys Pro Lys 1854 Leu Tyr Ala Glu	Arg Val Ile 1853 Glu 15 Gln Asn Thr	Thr 1851 Tyr 30 Ala Gly Phe Leu 1859 Glu	Cys 1850 Asp 5 Asp Ala Lys Arg 1856 Pro	Asp OO Thr Gly Ala Gln 1856 Ile OGly	Ser Gly Asp 1855 Phe 55 Cys Ser	Leu Arg Ala 1853 Glu 50 Thr Ala Val Asp	Ser 1852 Pro 35 Trp Val Ile Val 1860 Leu	Pro 1850 Ser Val Thr Asn 1858 Ala	Pro Pro Thr Lys 1857 Ser Gln	Gly Ser Gly Cys 1855 Leu O Glu Glu Val	Pro Leu Tyr 1854 Thr 5 Lys Gly Arg	Pro Ala 1852 Val O Pro Glu Val Ile 1860 Val	Ser 1851 Trp 25 Val Pro Asn Gly 1859 Glu	Asn O Ser Glu Thr Thr 1857 Glu O Pro	Pro Lys Val Gly 18560 Glu 75 Pro
E> E> E> E>	3712 3713 3714 3715 3716 3717 3718 3719 3720 3721 3722 3723 3724 3725 3726 3727	Tyr Lys Pro Lys 1854 Leu Tyr Ala Glu	Arg Val Ile 1853 Glu 15 Gln Asn Thr Ile 1861	Thr 1851 Tyr 30 Ala Gly Phe Leu 1859 Glu	Cys 1850 Asp 5 Asp Ala Lys Arg 1856 Pro	Asp OO Thr Gly Ala Gln 1856 Ile OGly Asp	Asp Asp Asp 1855 Phe 55 Cys Ser	Leu Arg Ala 1853 Glu 50 Thr Ala Val Asp 1861	Ser 1852 Pro 35 Trp Val Ile Val 1860 Leu	Pro 1850 Ser O Val Thr Asn 1858 Ala O Arg	Pro Pro Thr Lys 1857 Ser Gln Lys	Gly Ser Gly Cys 1855 Leu Glu Glu Val	Pro Leu Tyr 1854 Thr 5 Lys Gly Arg Val	Pro Ala 1852 Val O Pro Glu Val Ile 1860 Val	Ser 1851 Trp 25 Val Pro Asn Gly 1859 Glu 5	Asn O Ser Glu Thr Thr 1857 Glu O Pro	Pro Lys Val Gly 18560 Glu 75 Pro Pro Ala
E> E> E> E> E> E>	3712 3713 3714 3715 3716 3717 3718 3720 3721 3722 3723 3724 3725 3726 3727 3728	Tyr Lys Pro Lys 1854 Leu Tyr Ala Glu Ser	Arg Val Ile 1853 Glu 15 Gln Asn Thr Ile 1863 Ala	Thr 1851 Tyr 30 Ala Gly Phe Leu 1859 Glu	Cys 1850 Asp 5 Asp Ala Lys Arg 1856 Pro	Asp OO Thr Gly Ala Gln 1856 Ile OGly Asp	Asp Asp Asp 1855 Phe 55 Cys Ser Ala Leu	Leu Arg Ala 1853 Glu 50 Thr Ala Val Asp 1861 Phe	Ser 1852 Pro 35 Trp Val Ile Val 1860 Leu	Pro 1850 Ser O Val Thr Asn 1858 Ala O Arg	Pro Pro S Val Lys Thr Lys 1857 Ser G In Lys	Gly Ser Gly Cys 1855 Leu Glu Glu Val	Pro Leu Tyr 1854 Thr 5 Lys Gly Arg Val 1862 Gly	Pro Ala 1852 Val O Pro Glu Val Ile 1860 Val	Ser 1851 Trp 25 Val Pro Asn Gly 1859 Glu 5	Asn O Ser Glu Thr Thr 1857 Glu O Pro	Pro Lys Val Gly 18560 Glu 75 Pro Pro Ala Pro
E> E> E> E> E>	3712 3713 3714 3715 3716 3717 3718 3720 3721 3722 3723 3724 3725 3726 3727 3728	Tyr Lys Pro Lys 1854 Leu Tyr Ala Glu Ser 1862	Arg Val Ile 1853 Glu 15 Gln Asn Thr Ile 1861 Ala	Thr 1851 Tyr 30 Ala Gly Phe Leu 1859 Glu 10	Cys 1850 Asp 5 Asp Ala Lys Arg 1856 Pro 5 Leu	Asp Of Thr Gly Ala Gln 1856 Ile Gly Asp	S5 Ala Ser Gly Asp 1855 Phe 55 Cys Ser Ala Leu 1863	Arg Ala 1853 Glu 50 Thr Ala Val Asp 1861 Phe	Ser 1852 Pro 35 Trp Val Ile Val 1860 Leu Val	Pro 1850 Ser O Val Thr Asn 1858 Ala O Arg	Pro	Gly Ser Gly Cys 1855 Leu Glu Glu Val Lys 1863	Pro Leu Tyr 1854 Thr 5 Lys Gly Arg Val 1862 Gly 5	Pro Ala 1852 Val O Pro Glu Val Ile 1860 Val O Arg	Ser 1851 Trp 25 Val Pro Asn Gly 1859 Glu 5 Leu Pro	Asn O Ser Glu Thr Thr 1857 Glu O Pro Arg	Pro Lys Val Gly 18560 Glu 75 Pro Pro Ala Pro 18640

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E>	> 373	1				18	1645				10	CEA					
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E>	> 373	5	=	18	675		1	9 - 1	10	680	u in	r rei	1 GI	ı As	n As	n Se	r Gly
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E>	3743	3			187	40	g GI	u III.	£ 111.	r Arc	д гуз	s Ala	Tyr	Ala	Th:	r Ile	e Thr
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E>	3745	5		185	755	пу.	2 1111	L 111.	r Pne	e Aro	1 TTE	e Glu	Asn	Lei	ı Glr	ı Glı	ı Gly
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E>	3749	187	85		. 014	1111	107	. GIU	1 Pro	o vai	. ràs	Val	Ser	Glu	Pro	Pro	Leu
E>	3751				1119	189	. IIII	. nec	ı val	L Asp) Vai	Thr	Arg	Asn	Thr	Ala	18800 Thr
	3752	Ile	Lvs	Tro	Gli	Lve	Dro			. 7	188	10				188	15
E>	3753		-,0		188	on Dys	PIC	, GIL	ser	Asp	GLy	Gly	Ser	Lys	Ile	Thr	1 15 Gly
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E>	3755	- 4 -		188	35	1160	GIII	1111	rys	Gly	Ser	Glu	Lys	Trp	Ser	Thr	Cys
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E>	3762 3763	-1-		DCI	1890	oru M	ьеи	Pro	Pne	His	Thr	Phe	Asn	Val	Lys	Ala	Arg
	3764	Glu	Gln	Len	Luc	71 ^	7 an	1707	D	1890	25				189	10	
E>	3764 3765			1891	L5	-1C	usb	val	rro	rne	ьys	GТУ	Arg	Pro	Gln	Ala	Thr
E>	3766 3767		189	30	9	-Jy 3	тэр	100	eru GTU	Thr	Leu	ьуs	Glu	Thr	Thr	Arg	Val
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		Glv	Ser	Tle	Thr	1090 Val	Dro	Tla	m 1	- 1	1897	0	_			1897	' 5
E> ;	3772 3773	4			1898	U Tur	110	тте	III	TTE	TTE	val	Leu	Asp	Arg	Pro	Gly
E> 3	3774 3 775			1899	5	- T.G	ALG	тте	ASP	GLU	val	Ser	Cys I	Asp	Ser	Ile	Thr
E> 3	3776 3 777		1901	0	11011	LIO	LIO	GIU	Tyr	Asp	GTA	Gly (Cys (Gln	Ile	Ser	Asn
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	3780		Gln	Ala	Val			Thr	Ser	Ile			Val	Arg	Leu		
E>	3781		_	~.		1904		_		_	1905		_	_	_	1905	
	3782	Gly	Ser	Glu	Tyr	Gln	Phe	Arg				Glu	Asn	Arg			Lys
E>	3783	_	_	_	1906		_	_		1906					1907		
	3784		Ser	_		Glu	Ser	Ser			Val	Ala	Glu	-		Phe	Ser
E>	3785		_	1907	_	_	- 23	m)	1908			,		1908			~
	3786				Pro	Pro				гàг	Val	Val			Thr	ьуs	Ser
E>	3787		1909		1	m)		1909		_	** 7		1910		~1	_	_
	3788			Leu	val						Val		_	GLY	GTA	Ser	_
E>	3789			~ 1			1911		m		0.1	1911		~	- 1	_	19120
	3790	vai	тте	GTÄ	Tyr			GIU	Tyr				Ser	Ser	TT6		-
E>	3791		-		_	1912		_	- 1		1913		~ 1		_	1913	
	3792		Lys	Ата			TTE	Leu						Val			Ser
E>	3793		~		1914		_				15			_	1915		_
	3794					GTA	Leu				Tyr	Arg				Glu	Asn
E>	3795			1915		~1	_		1916		_	~		1916		_	- 3
	3796	тте										Cys			vaı	Pro	Ala
E>	3797	70		70				1917		61		0.1	1918			- 1	mi
	3798								GTĀ	GIN	Pro			Thr	Asn	TTE	
E>	3799			a	**- 7	G	1919	3U T	m	0	T	1919	-	m	70	01 .	19200
	3800	Arg	гÀг	ser	vaı		Leu	ьys	Trp	ser			Hls	Tyr	Asp		
ピーーン	3801	71.	T	T1.	III la sa	1920					1921		C1	T	D	1921	_
	3802	Ата	ràs	тте	1922		Tyr	TTE				Arg	GIU				GIÀ
ピーーン	3803	7	III	T			7 ~~	m		1922		C1 -	C1		1923		C1
	3804	Arg	TIP	ьeu	LУS	CVS	ASII	IVI	1111	ASII	тте	GIII	$G \perp U$	THI	TVI	PHE	GIU
п .	2005		-														
E>	3805			1923	35				1924	10				1924	15		
	3806		Thr	192 3 Glu	35		Glu	Asp	1924 Gln	10			Phe	1924 Arg	15		
	3806 3807	Val	Thr 1925	1923 Glu 50	8 5 Leu	Thr.	Glu	Asp 192 5	192 4 Gln 5 5	10 Arg	Tyr	Glu	Phe 192 6	1924 Arg 0	5 Val	Phe	Ala
E>	3806 3807 3808	Val Arg	Thr 192 5 Asn	1923 Glu 50	8 5 Leu	Thr.	Glu Ser	Asp 1925 Val	192 4 Gln 5 5	10 Arg	Tyr	Glu Ser	Phe 1926 Glu	1924 Arg 0	5 Val	Phe	Ala Pro
E>	3806 3807 3808 3809	Val Arg 192 6	Thr 1925 Asn	1923 Glu 50 Ala	Est Leu Ala	Thr. Asp	Glu Ser 192 7	Asp 1925 Val	1924 Gln 55 Ser	Arg Glu	Tyr Pro	Glu Ser 192 7	Phe 1926 Glu '5	1924 Arg 60 Ser	Val Thr	Phe Gly	Ala Pro 19280
E>	3806 3807 3808 3809 3810	Val Arg 192 6	Thr 1925 Asn	1923 Glu 50 Ala	Leu Ala Lys	Thr. Asp Asp	Glu Ser 192 7 Asp	Asp 1925 Val	1924 Gln 55 Ser	Arg Glu Pro	Tyr Pro Pro	Glu Ser 1927 Arg	Phe 1926 Glu '5	1924 Arg 60 Ser	Val Thr Met	Phe Gly Asp	Ala Pro 19280 Val
E>	3806 3807 3808 3809 3810 3811	Val Arg 192 6 Ile	Thr 1925 Asn 55 Ile	1923 Glu 50 Ala Val	Estable Leu Ala	Thr. Asp Asp	Glu Ser 192 7 Asp	Asp 1925 Val 70 Val	1924 Gln 55 Ser Glu	Arg Glu Pro	Tyr Pro Pro	Glu Ser 1927 Arg	Phe 1926 Glu '5 Val	1924 Arg 50 Ser Met	Val Thr Met	Phe Gly Asp 1929	Ala Pro 19280 Val
E> E>	3806 3807 3808 3809 3810 3811 3812	Val Arg 192 6 Ile	Thr 1925 Asn 55 Ile	1923 Glu 50 Ala Val	Leu Ala Lys Asp	Thr. Asp Asp 1928	Glu Ser 192 7 Asp	Asp 1925 Val 70 Val	1924 Gln 55 Ser Glu Val	Arg Glu Pro Lys	Tyr Pro Pro 1929	Glu Ser 1927 Arg O Gly	Phe 1926 Glu '5 Val	1924 Arg 50 Ser Met	Val Thr Met Leu	Phe Gly Asp 1929 Lys	Ala Pro 19280 Val
E> E>	3806 3807 3808 3809 3810 3811 3812 3813	Val Arg 1926 Ile Lys	Thr 1925 Asn 55 Ile Phe	1923 Glu 50 Ala Val Arg	Ala Lys Asp 1930	Thr. Asp Asp 1928 Val	Glu Ser 192 7 Asp 85 Ile	Asp 1925 Val Val Val	Gln 55 Ser Glu Val	Arg Glu Pro Lys 1930	Tyr Pro Pro 1929 Ala	Glu Ser 1927 Arg OO Gly	Phe 1926 Glu 75 Val Glu	Arg 60 Ser Met	Val Thr Met Leu 1931	Phe Gly Asp 1929 Lys	Pro 19280 Val 95 Ile
E> E> E>	3806 3807 3808 3809 3810 3811 3812 3813 3814	Val Arg 1926 Ile Lys	Thr 1925 Asn 55 Ile Phe	1923 Glu 50 Ala Val Arg	Leu Ala Lys Asp 1930	Thr. Asp Asp 1928 Val	Glu Ser 192 7 Asp 85 Ile	Asp 1925 Val 70 Val Val	Gln 55 Ser Glu Val	Arg Glu Pro Lys 1930	Tyr Pro Pro 1929 Ala	Glu Ser 1927 Arg OO Gly	Phe 1926 Glu 75 Val Glu	Arg 60 Ser Met Val	Val Thr Met Leu 1931	Phe Gly Asp 1929 Lys	Pro 19280 Val 95 Ile
E> E> E>	3806 3807 3808 3809 3810 3811 3812 3813 3814 3815	Val Arg 1926 Ile Lys Asn	Thr 1925 Asn 55 Ile Phe	1923 Glu 50 Ala Val Arg Asp	Ala Lys Asp 1930 Ile	Thr. Asp Asp 1928 Val 00 Ala	Glu Ser 1927 Asp 55 Ile Gly	Asp 1925 Val 70 Val Val	Gln 55 Ser Glu Val Pro 1932	Glu Pro Lys 1930 Leu	Pro Pro 1929 Ala 5	Glu Ser 1927 Arg OO Gly Val	Phe 1926 Glu '5 Val Glu Ile	Arg 60 Ser Met Val Ser 1932	Val Thr Met Leu 1931 Trp	Phe Gly Asp 1929 Lys LO Ala	Ala Pro 19280 Val 95 Ile Lys
E> E> E> E>	3806 3807 3808 3809 3810 3811 3812 3813 3814 3815 3816	Val Arg 1926 Ile Lys Asn	Thr 1925 Asn 55 Ile Phe Ala Gly	Glu Glu GO Ala Val Arg Asp 1931	Ala Lys Asp 1930 Ile	Thr. Asp Asp 1928 Val 00 Ala	Glu Ser 1927 Asp S5 Ile Gly Glu	Asp 1925 Val 70 Val Val Arg	Gln 55 Ser Glu Val Pro 1932 Arg	Glu Pro Lys 1930 Leu	Pro Pro 1929 Ala 5	Glu Ser 1927 Arg OO Gly Val	Phe 1926 Glu '5 Val Glu Ile Glu	Arg 60 Ser Met Val Ser 1932	Val Thr Met Leu 1931 Trp	Phe Gly Asp 1929 Lys LO Ala	Ala Pro 19280 Val 95 Ile Lys
E> E> E> E>	3806 3807 3808 3809 3810 3811 3812 3813 3814 3815 3816 3817	Val Arg 1926 Ile Lys Asn Asp	Thr 1925 Asn 55 Ile Phe Ala Gly 1933	1923 Glu 50 Ala Val Arg Asp 1931 Ile	Ala Lys Asp 1930 Ile 5	Thr. Asp Asp 1928 Val O Ala Ile	Glu Ser 1927 Asp S5 Ile Gly Glu	Asp 1925 Val Val Val Arg Glu 1933	Glu Val Pro 1932 Arg	Arg Glu Pro Lys 1930 Leu O Ala	Pro Pro 1929 Ala 5 Pro Arg	Ser 1927 Arg O Gly Val	Phe 1926 Glu '5 Val Glu Ile Glu 1934	Arg 50 Ser Met Val Ser 1932 Ile	Val Thr Met Leu 1931 Trp !5	Phe Gly Asp 1929 Lys O Ala	Ala Pro 19280 Val 95 Ile Lys Thr
E> E> E> E>	3806 3807 3808 3809 3810 3812 3813 3814 3815 3816 3817 3818	Val Arg 1926 Ile Lys Asn Asp Asp	Thr 1925 Asn 55 Ile Phe Ala Gly 1933 Asn	1923 Glu 50 Ala Val Arg Asp 1931 Ile	Ala Lys Asp 1930 Ile 5	Thr. Asp Asp 1928 Val O Ala Ile Leu	Glu Ser 1927 Asp 5 Ile Gly Glu Leu	Asp 1925 Val 70 Val Val Arg Glu 1933 Thr	Glu Val Pro 1932 Arg	Arg Glu Pro Lys 1930 Leu O Ala	Pro Pro 1929 Ala 5 Pro Arg	Ser 1927 Arg OO Gly Val Thr	Phe 1926 Glu 75 Val Glu Ile Glu 1934 Ile	Arg 50 Ser Met Val Ser 1932 Ile	Val Thr Met Leu 1931 Trp !5	Phe Gly Asp 1929 Lys O Ala	Ala Pro 19280 Val 95 Ile Lys Thr
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	3884	Lys	Ile	Thr	Glu	Lys	Pro	Ser	Pro	Pro	Glu	Lys	Leu	Gly	Val	Thr	Ser
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	3886	Ile	Ser	Lys	Asp	Ser	Val	Ser	Leu	Thr	Trp	Leu	Lys	Pro	Glu	His	Asp
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	3888	Gly	Gly	Ser	Arg	Ile	Val	His	Tyr	Val	Val	Glu	Ala	Leu	Glu	Lys	Gly
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	3890	Gln	Lys	Asn	Trp	Val	Lvs	Cvs	Ala	Val	Ala	Lys	Ser	Thr	His	His	Val
E>	3891					1992	25	-1-			1993	30				1993	35
	3892	Val	Ser	Gly	Leu	Arg	Glu	Asn	Ser	Glu	Tyr	Phe	Phe	Arg	Val	Phe	Ala
E>	3893				1994	10				1994	45				1995	50	
	3894	Glu	Asn	Gln	Ala	Gly	Leu	Ser	Asp	Pro	Arg	Glu	Leu	Leu	Leu	Pro	Val
E>				199					1996		-			1996			
	3896	Leu	Ile	Lys	Glu	Gln	Leu	Glu	Pro	Pro	Glu	Ile	Asp	Met	Lys	Asn	Phe
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	3898	Pro	Ser	His	Thr	Val	Tyr	Val	Arg	Ala	Gly	Ser	Asn	Leu	Lys	Val	Asp
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	3902	Glv	Val	Pro	Leu	Lvs	Ala	Thr	Met				Thr	Glu	Ile	Thr	Ala
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	3904	Glu	Asn	Leu	Thr	Ile	Asn	Leu	Lvs			Val	Thr	Ala	Asp	Ala	Glv
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	3910 3911 3912	200 6 Val	55 Ile	Ser Tyr	Asp Asp	Ile 2008 Gly	2007 Thr 35 Gly	70 Glu Ser	Glu Gln	Ser Val	Val 2009 Thr	2007 Thr 90 Asn	5 Leu Tyr	Lys Ile	Trp Leu	Glu 200 9 Leu	20080 Pro 95
E>	3910 3911 3912 3913	2006 Val Pro	Ile Lys	Ser Tyr	Asp Asp 2010	Ile 2008 Gly	2007 Thr 35 Gly	70 Glu Ser	Glu Gln	Ser Val 2010	Val 2009 Thr	2007 Thr 90 Asn	75 Leu Tyr	Lys Ile	Trp Leu 2011	Glu 200 9 Leu LO	20080 Pro 95 Lys
E>	3910 3911 3912 3913 3914	Val Pro	Ile Lys	Ser Tyr Thr	Asp Asp 201 0 Ser	Ile 2008 Gly	2007 Thr 35 Gly	70 Glu Ser	Glu Gln Trp	Ser Val 2010	Val 2009 Thr	2007 Thr 90 Asn	75 Leu Tyr	Lys Ile Ala	Trp Leu 2011 Thr	Glu 200 9 Leu LO	20080 Pro 95 Lys
	3910 3911 3912 3913 3914 3915	2006 Val Pro Arg	Ile Lys Glu	Ser Tyr Thr 201	Asp Asp 201 0 Ser	Ile 2008 Gly O Thr	2007 Thr 35 Gly Ala	70 Glu Ser Val	Glu Gln Trp 2012	Ser Val 2010 Thr	Val 2009 Thr 5 Glu	2007 Thr 90 Asn Val	Tyr Ser	Lys Ile Ala 2012	Trp Leu 2011 Thr	Glu 2009 Leu Lo Val	20080 Pro 95 Lys Ala
E>	3910 3911 3912 3913 3914 3915 3916	2006 Val Pro Arg	Ile Lys Glu Thr	Ser Tyr Thr 2011	Asp Asp 2010 Ser L5 Met	Ile 2008 Gly O Thr	2007 Thr 35 Gly Ala Val	70 Glu Ser Val Met	Glu Gln Trp 2012 Lys	Ser Val 2010 Thr	Val 2009 Thr 5 Glu	2007 Thr 90 Asn Val	Tyr Ser	Lys Ile Ala 2012 Glu	Trp Leu 2011 Thr	Glu 2009 Leu Lo Val	20080 Pro 95 Lys Ala
E>	3910 3911 3912 3913 3914 3915 3916 3917	2006 Val Pro Arg Arg	Ile Lys Glu Thr 2013	Ser Tyr Thr 2011 Met	Asp Asp 2010 Ser L5 Met	Ile 2008 Gly O Thr	2007 Thr 35 Gly Ala	70 Glu Ser Val Met 2013	Glu Gln Trp 2012 Lys 35	Ser Val 2010 Thr 20 Leu	Val 2009 Thr 55 Glu Thr	2007 Thr 30 Asn Val	Tyr Ser Gly 2014	Lys Ile Ala 2012 Glu	Trp Leu 2011 Thr 25 Glu	Glu 2009 Leu 10 Val Tyr	20080 Pro 95 Lys Ala
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E> 4	022 5 0 23			-vy3	2098	er /	al	тте	ьeu	Ser	Trp	Thr	Lys	Pro	Asp	Phe .	Asp
•	024	· y	~± y '	OCT	val]	тте Л	nr	GLU	Tyr	Val	Val	Glu .	Arg	Lys	Gly :	Lys (Gly
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F >	4025			209	95				2100	าก				210	n s		
	4026	Glu	Gln			Sar	Hie	Δla			Sor	Tvc	Thr			т1.	C1.,
F>	4027	Gru	210		115	261	1113	210:	ie Gră	116	261	пуз	2102		GIU	116	Giu
	4028	V = 1			T.011	Tue	Glu			Wa 1	T 011	C1,,			17-1	Dho	71.
F	4029			GIII	шеu	цуз	210		Ser	val	Leu			Arg	val	Fne	
E>				C1	T	C1			71	D	77-7	2103		C1	D	T 3 .	21040
E>	4.030	ьуѕ	ASII	Gru	ьуѕ			ser	ASP	Pro			тте	GTA	Pro		
E>		77- 7	T	G1	7	210		m1	ъ.	~ 1	210		-	_	_	210	
	4032	var	глх	GIU			ire	Thr	Pro			Asp	ьеи	Ser			Pro
E>		G 3	70 T -	G3	210		77 7		T 1.	2106		_			210		_
	4034	GTĀ	Ата			Thr	vaı	Arg			His	Asn	Val			GIu	Leu
E>		5		210	-			-	2108		1	_	_	2108		_	
	4036	Pro			GTY	ьуѕ	Pro			Ser	TTe	Ser	_		Lys	Asp	Gly
E>		_	210		_		_	2109			_		2110				
	4038								Phe	Val	Arg			Lys	Thr	Glu	
E>	4039				_		2111		_		_	2111					21120
	4040	ьуs	ше	Thr	Leu			гÀг	Asn	Ala			Glu	His	GLY	_	-
E>		_	ans.		- 1	2112		_			2113	-				2113	
	4042		Thr	Val										Ala			Ile
E>	4043		77. 3	71. 1	2114			_		2114		_		~1	2115		_
	4044	Thr	vaı			Leu	GTÄ	Pro			Lys	Pro	гĀг			lle	Arg
E>		DI	~	211!		-		-	2116				_	2116			_
	4046	Pne								vaı	тте	ьeu		_	Asp	vaı	Pro
E>		61	211	-		G1		2117		m)	~	m	2118		- 1	_	_
	4048			Asn	GTA				ше	Thr				TTE	Glu	гÀг	
E>				•	01		2119	-				2119	_	_			21200
	4050	GIU	Thr	Ser	GIN		Asn			мет	vaı	Cys	Ser	Ser	vai	Ala	Arg ·
E>						~ ~ ~ ~					~ ~ ~ ~						
		m\	mil.	D1	T	2120			T		2121		7.7	61	m	2121	
	4052	Thr	Thr	Phe		Val	Pro	Asn	Leu	Val	Lys		Ala	Glu	-	Gln	
E>	4052 4053				2122	Val 2 0	Pro	Asn	Leu	Val 2122	Lys 2 5	Asp			2123	Gln 30	Phe
	4052 4053 4054			Arg	2122 Ala	Val 2 0	Pro	Asn Arg	Leu Tyr	Val 2122 Gly	Lys 25 Val	Asp Ser	Gln	Pro	212 3 Leu	Gln 30	Phe
E>	4052 4053 4054 4055	Arg	Val	Arg 212 3	2122 Ala 35	Val 2 0 Glu	Pro Asn	Asn Arg	Leu Tyr 212 4	Val 2122 Gly 10	Lys 2 5 Val	Asp Ser	Gln	Pro 212 4	212 3 Leu 15	Gln 8 0 Val	Phe
E>	4052 4053 4054 4055 4056	Arg	Val Ile	Arg 212 3 Ile	2122 Ala 35	Val 2 0 Glu	Pro Asn Lys	Asn Arg His	Tyr 2124 Gln	Val 2122 Gly 10	Lys 2 5 Val	Asp Ser	Gln Pro	Pro 212 4 Gly	212 3 Leu 15	Gln 8 0 Val	Phe
	4052 4053 4054 4055 4056 4057	Arg Ser	Val Ile 212 5	Arg 212 3 Ile 50	2122 Ala 35 Val	Val 2 0 Glu Ala	Pro Asn Lys	Asn Arg His 2125	Tyr 2124 Gln 55	Val 2122 Gly 10 Phe	Lys 2 5 Val Arg	Asp Ser Ile	Gln Pro 2126	Pro 2124 Gly 50	212 3 Leu 15 Pro	Gln 80 Val Pro	Phe Ser Gly
E>	4052 4053 4054 4055 4056 4057 4058	Arg Ser Lys	Val Ile 2125 Pro	Arg 2123 Ile 50 Val	2122 Ala 35 Val	Val 20 Glu Ala Tyr	Pro Asn Lys Asn	Asn Arg His 2125 Val	Tyr 2124 Gln 55	Val 2122 Gly 10 Phe	Lys 25 Val Arg	Asp Ser Ile Gly	Gln Pro 212 6 Met	Pro 2124 Gly 50	212 3 Leu 15 Pro	Gln 30 Val Pro	Phe Ser Gly Trp
E>	4052 4053 4054 4055 4056 4057 4058 4059	Arg Ser Lys 2126	Val Ile 212 5 Pro	Arg 212 3 Ile 50 Val	2122 Ala 35 Val	Val 20 Glu Ala Tyr	Pro Asn Lys Asn 2127	Asn Arg His 2125 Val	Tyr 2124 Gln 55 Thr	Val 2122 Gly 10 Phe Ser	Lys 25 Val Arg Asp	Asp Ser Ile Gly 2127	Gln Pro 212 6 Met	Pro 2124 Gly 50 Ser	2123 Leu 15 Pro Leu	Gln 30 Val Pro Thr	Phe Ser Gly Trp 21280
E> E>	4052 4053 4054 4055 4056 4057 4058 4059 4060	Arg Ser Lys 2126	Val Ile 212 5 Pro	Arg 212 3 Ile 50 Val	2122 Ala 35 Val	Val 20 Glu Ala Tyr	Pro Asn Lys Asn 2127 Asp	Asn Arg His 2125 Val	Tyr 2124 Gln 55 Thr	Val 2122 Gly 10 Phe Ser	Lys 25 Val Arg Asp	Asp Ser Ile Gly 2127 Val	Gln Pro 212 Met /5	Pro 2124 Gly 50 Ser	2123 Leu 15 Pro Leu	Gln 30 Val Pro Thr	Phe Ser Gly Trp 21280 Val
E>	4053 4054 4055 4056 4057 4058 4059 4060 4061	Arg Ser Lys 2126 Asp	Val Ile 2125 Pro 55 Ala	Arg 2123 Ile 50 Val Pro	2122 Ala 35 Val Ile Val	Val 20 Glu Ala Tyr Tyr 2128	Pro Asn Lys Asn 2127 Asp 85	Asn Arg His 2125 Val Gly	Tyr 2124 Gln 55 Thr	Val 2122 Gly 10 Phe Ser	Lys 25 Val Arg Asp Glu 2129	Asp Ser Ile Gly 2127 Val	Gln Pro 2126 Met 75 Thr	Pro 2124 Gly 50 Ser Gly	Leu Phe	Gln 30 Val Pro Thr His 2129	Phe Ser Gly Trp 21280 Val
E> E> E>	4052 4053 4054 4055 4056 4057 4058 4060 4061 4062	Arg Ser Lys 2126 Asp	Val Ile 2125 Pro 55 Ala	Arg 2123 Ile 50 Val Pro	Ala 35 Val Ile Val Glu	Val 20 Glu Ala Tyr Tyr 2128 Arg	Asn Lys Asn 2127 Asp Asp Asn	Asn Arg His 2125 Val OGly Ser	Tyr 2124 Gln 55 Thr Gly Ile	Val 2122 Gly 10 Phe Ser Ser	Lys 25 Val Arg Asp Glu 2129	Asp Ser Ile Gly 2127 Val 90 Gln	Gln Pro 2126 Met 75 Thr	Pro 2124 Gly 50 Ser Gly Val	Leu Phe Asn	Gln 30 Val Pro Thr His 2129	Phe Ser Gly Trp 21280 Val
E> E>	4052 4053 4054 4055 4056 4057 4058 4059 4060 4061 4062 4063	Arg Ser Lys 2126 Asp Glu	Val Ile 212 5 Pro 55 Ala Lys	Arg 2123 Ile 50 Val Pro	Ala 35 Val Ile Val Glu 2130	Val 20 Glu Ala Tyr Tyr 2128 Arg	Asn Lys Asn 2127 Asp Asn Asn	Asn Arg His 2125 Val Gly Ser	Tyr 2124 Gln 55 Thr Gly Ile	Val 2122 Gly 10 Phe Ser Ser Leu 2130	Lys 25 Val Arg Asp Glu 2129 Trp 05	Asp Ser Ile Gly 2127 Val Val Gln	Gln Pro 2126 Met 75 Thr	Pro 2124 Gly 50 Ser Gly Val	Leu Phe Asn 2131	Gln 30 Val Pro Thr His 2129 Thr	Phe Ser Gly Trp 21280 Val 95 Ser
E> E> E> E>	4052 4053 4054 4055 4056 4057 4058 4060 4061 4062 4063 4064	Arg Ser Lys 2126 Asp Glu	Val Ile 212 5 Pro 55 Ala Lys	Arg 2123 Ile 50 Val Pro Lys Ser	Ala S5 Val Ile Val Glu 2130 Gly	Val 20 Glu Ala Tyr Tyr 2128 Arg	Asn Lys Asn 2127 Asp Asn Asn	Asn Arg His 2125 Val OGly Ser Tyr	Tyr 2124 Gln 55 Thr Gly Ile Arg	Val 2122 Gly 10 Phe Ser Ser Leu 2130 Ala	Lys 25 Val Arg Asp Glu 2129 Trp 05	Asp Ser Ile Gly 2127 Val Val Gln	Gln Pro 2126 Met 75 Thr	Pro 2124 Gly 50 Ser Gly Val	Leu Fro Leu Phe Asn Glu	Gln 30 Val Pro Thr His 2129 Thr	Phe Ser Gly Trp 21280 Val 95 Ser
E> E> E>	4052 4053 4054 4055 4056 4057 4058 4069 4061 4062 4063 4064 4065	Arg Ser Lys 2126 Asp Glu Pro	Val Ile 2125 Pro 55 Ala Lys Ile	Arg 2123 Ile 50 Val Pro Lys Ser 2133	Ala Ala S5 Val Ile Val Glu 2130 Gly 15	Val 20 Glu Ala Tyr Tyr 2128 Arg O Arg	Asn Lys Asn 2127 Asp S5 Asn Glu	Asn Arg His 2125 Val Gly Ser Tyr	Tyr 2124 Gln 55 Thr Gly Ile Arg 2132	Val 2122 Gly 10 Phe Ser Ser Leu 2130 Ala	Lys 25 Val Arg Asp Glu 2129 Trp 5	Asp Ser Ile Gly 2127 Val 90 Gln Gly	Gln Pro 2126 Met 75 Thr Lys Leu	Pro 2124 Gly 50 Ser Gly Val Val	Leu Fro Leu Phe Asn Glu 25	Gln 30 Val Pro Thr His 2129 Thr 10 Gly	Phe Ser Gly Trp 21280 Val 95 Ser Leu
E> E> E> E> E>	4052 4053 4055 4055 4056 4057 4058 4060 4061 4062 4063 4064 4065 4066	Arg Ser Lys 2126 Asp Glu Pro	Val Ile 2129 Pro 55 Ala Lys Ile Tyr	Arg 2123 Ile 50 Val Pro Lys Ser 2133 Gln	2122 Ala 35 Val Ile Val Glu 2130 Gly 15 Phe	Val 20 Glu Ala Tyr Tyr 2128 Arg O Arg	Asn Lys Asn 2127 Asp 35 Asn Glu Val	Asn Arg His 2125 Val O Gly Ser Tyr	Tyr 2124 Gln 55 Thr Gly Ile Arg 2132 Ala	Val 2122 Gly 10 Phe Ser Ser Leu 2130 Ala	Lys 25 Val Arg Asp Glu 2129 Trp 5	Asp Ser Ile Gly 2127 Val 90 Gln Gly Ser	Gln Pro 2126 Met 75 Thr Lys Leu Ala	Pro 2124 Gly 50 Ser Gly Val Val 2132 Gly	Leu Fro Leu Phe Asn Glu 25	Gln 30 Val Pro Thr His 2129 Thr 10 Gly	Phe Ser Gly Trp 21280 Val 95 Ser Leu
E> E> E> E>	4052 4053 4054 4055 4056 4057 4058 4060 4061 4062 4063 4064 4065 4066 4067	Arg Ser Lys 2126 Asp Glu Pro	Val Ile 2125 Pro 55 Ala Lys Ile Tyr 2133	Arg 2123 Ile 50 Val Pro Lys Ser 2133 Gln 30	Ala S5 Val Ile Val Glu 2130 Gly L5 Phe	Val 20 Glu Ala Tyr Tyr 2128 Arg O Arg	Asn Lys Asn 2127 Asp 35 Asn Glu Val	Asn Arg His 2125 Val O Gly Ser Tyr Tyr 2133	Tyr 2124 Gln 55 Thr Gly Ile Arg 2132 Ala	Val 2122 Gly 10 Phe Ser Ser Leu 2130 Ala 20	Lys 25 Val Arg Asp Glu 2129 Trp 5 Thr	Asp Ser Ile Gly 2127 Val OO Gln Gly Ser	Pro 2126 Met 75 Thr Lys Leu Ala 2136	Pro 2124 Gly 50 Ser Gly Val Val 2132 Gly	Leu Phe Asn Glu Leu	Gln 30 Val Pro Thr His 2129 Thr 10 Gly Ser	Phe Ser Gly Trp 21280 Val 95 Ser Leu Ser
E> E> E> E> E>	4052 4053 4055 4055 4055 4058 4059 4060 4061 4062 4063 4064 4065 4066 4067 4068	Arg Ser Lys 2126 Asp Glu Pro Asp	Val Ile 2125 Pro 55 Ala Lys Ile Tyr 2133 Ser	Arg 2123 Ile 50 Val Pro Lys Ser 2133 Gln 30	Ala S5 Val Ile Val Glu 2130 Gly L5 Phe	Val 20 Glu Ala Tyr Tyr 2128 Arg O Arg	Asn Lys Asn 2127 Asp 35 Asn Glu Val	Asn Arg His 2125 Val O Gly Ser Tyr Tyr 2133 Phe	Tyr 2124 Gln 55 Thr Gly Ile Arg 2132 Ala	Val 2122 Gly 10 Phe Ser Ser Leu 2130 Ala 20	Lys 25 Val Arg Asp Glu 2129 Trp 5 Thr	Asp Ser Ile Gly 2127 Val OO Gln Gly Ser Val	Gln Pro 2126 Met 75 Thr Lys Leu Ala 2136 Ser	Pro 2124 Gly 50 Ser Gly Val Val 2132 Gly	Leu Phe Asn Glu Leu	Gln 30 Val Pro Thr His 2129 Thr 10 Gly Ser	Phe Ser Gly Trp 21280 Val 95 Ser Leu Ser Pro
E> E> E> E> E>	4052 4053 4054 4055 4056 4057 4058 4069 4061 4062 4063 4064 4065 4066 4067 4068 4069	Arg Ser Lys 2126 Asp Glu Pro Asp	Val Ile 2129 Pro 5 Ala Lys Ile Tyr 2133 Ser	Arg 212: 1le 50 Val Pro Lys Ser 213: Gln 30 Asp	Ala Ala S5 Val Ile Val Glu 2130 Gly S1 Phe	Val 20 Glu Ala Tyr Tyr 2128 Arg Arg Arg Arg	Asn Lys Asn 2127 Asp S5 Asn Glu Val Lys 2135	Asn Arg His 2125 Val OGly Ser Tyr 2133 Phe	Tyr 2124 Gln 55 Thr Gly Ile Arg 2132 Ala 55	Val 2122 Gly 10 Phe Ser Ser Leu 2130 Ala 20 Glu	Lys 25 Val Arg Asp Glu 2129 Trp 5 Thr Asn Ala	Asp Ser Ile Gly 2127 Val OGln Gly Ser Val 2135	Gln Pro 2126 Met 75 Thr Lys Leu Ala 2134 Ser	Pro 2124 Gly 60 Ser Gly Val 2132 Gly Pro	Leu Phe Asn 2131 Glu 25 Leu Val	Gln 30 Val Pro Thr His 2129 Thr Gly Ser Asp	Phe Ser Gly Trp 21280 Val 95 Ser Leu Ser Pro 21360
E> E> E> E> E> E>	4052 4053 4054 4055 4056 4057 4068 4061 4062 4063 4064 4065 4066 4067 4068 4069 4070	Arg Ser Lys 2126 Asp Glu Pro Asp	Val Ile 2125 Pro 55 Ala Lys Ile Tyr 2133 Ser	Arg 212: 1le 50 Val Pro Lys Ser 213: Gln 30 Asp	Ala Ala S5 Val Ile Val Glu 2130 Gly S1 Phe	Val 20 Glu Ala Tyr Tyr 2128 Arg Arg Arg Ser Asp	Asn Lys Asn 2127 Asp S5 Asn Glu Val Lys 2135	Asn Arg His 2125 Val O Gly Ser Tyr Tyr 2133 Phe 50 Ile	Tyr 2124 Gln 55 Thr Gly Ile Arg 2132 Ala 35 Thr	Val 2122 Gly 10 Phe Ser Ser Leu 2130 Ala 20 Glu Leu Val	Lys 25 Val Arg Asp Glu 2129 Trp 5 Thr Asn Ala	Asp Ser Ile Gly 2127 Val O Gln Gly Ser Val 2135 Arg	Gln Pro 2126 Met 75 Thr Lys Leu Ala 2134 Ser	Pro 2124 Gly 60 Ser Gly Val 2132 Gly Pro	Leu Phe Asn 2131 Glu 25 Leu Val	Gln 30 Val Pro Thr His 2129 Thr 10 Gly Ser Asp	Phe Ser Gly Trp 21280 Val 95 Ser Leu Ser Pro 21360 Leu
E> E> E> E> E>	4052 4053 4054 4055 4056 4057 4058 4061 4062 4063 4064 4065 4066 4067 4068 4069 4070 4071	Arg Ser Lys 2126 Asp Glu Pro Asp Pro 2134 Pro	Val Ile 2125 Pro 55 Ala Lys Ile Tyr 2133 Ser 15 Gly	Arg 212: 11e 50 Val Pro Lys Ser 213: Gln 30 Asp	Ala Ala S5 Val Ile Val Glu 2130 Gly Fhe Pro	Val 20 Glu Ala Tyr Tyr 2128 Arg Arg Arg Ser Asp 2136	Asn Lys Asn 2127 Asp 5 Asn Glu Val Lys 2135 Tyr	Asn Arg His 2125 Val OGly Ser Tyr 2133 Phe 60 Ile	Tyr 2124 Gln 55 Thr Gly Ile Arg 2132 Ala 55 Thr	Val 2122 Gly 10 Phe Ser Ser Leu 2130 Ala 20 Glu Leu Val	Lys 25 Val Arg Asp Glu 2129 Trp 5 Thr Asn Ala Thr 2137	Asp Ser Ile Gly 2127 Val OGln Gly Ser Val 2135 Arg	Gln Pro 2126 Met 75 Thr Lys Leu Ala 2136 Ser 65 Glu	Pro 2124 Gly 60 Ser Gly Val 2132 Gly Pro	Leu Phe Asn 2131 Glu Val Ile	Gln 30 Val Pro Thr His 2129 Thr 0 Gly Ser Asp Thr 2137	Phe Ser Gly Trp 21280 Val 95 Ser Leu Ser Pro 21360 Leu 75
E> E> E> E> E> E> E>	4052 4053 4054 4055 4056 4057 4068 4061 4062 4063 4064 4066 4067 4068 4070 4071 4072	Arg Ser Lys 2126 Asp Glu Pro Asp Pro 2134 Pro	Val Ile 2125 Pro 55 Ala Lys Ile Tyr 2133 Ser 15 Gly	Arg 212: 11e 50 Val Pro Lys Ser 213: Gln 30 Asp	Ala S5 Val Ile Val Glu 2130 Gly I5 Phe Pro Pro	Val 20 Glu Ala Tyr Tyr 2128 Arg O Arg Arg Ser Asp 2136 Pro	Asn Lys Asn 2127 Asp 5 Asn Glu Val Lys 2135 Tyr	Asn Arg His 2125 Val OGly Ser Tyr 2133 Phe 60 Ile	Tyr 2124 Gln 55 Thr Gly Ile Arg 2132 Ala 55 Thr	Val 2122 Gly 10 Phe Ser Ser Leu 2130 Ala 20 Glu Leu Val	Lys 25 Val Arg Asp Glu 2129 Trp 5 Thr Asn Ala Thr 2137 Gly	Asp Ser Ile Gly 2127 Val OGln Gly Ser Val 2135 Arg	Gln Pro 2126 Met 75 Thr Lys Leu Ala 2136 Ser 65 Glu	Pro 2124 Gly 60 Ser Gly Val 2132 Gly Pro	Leu Phe Asn 2133 Glu Val Ile Val	Gln 30 Val Pro Thr His 2129 Thr 0 Gly Ser Asp Thr 2137 Gly	Phe Ser Gly Trp 21280 Val 95 Ser Leu Ser Pro 21360 Leu 75
E> E> E> E> E> E>	4052 4053 4054 4055 4056 4057 4068 4061 4062 4063 4064 4066 4067 4068 4070 4071 4072	Arg Ser Lys 2126 Asp Glu Pro Asp Pro 2134 Pro	Val Ile 2125 Pro 55 Ala Lys Ile Tyr 2133 Ser 15 Gly	Arg 212: 11e 50 Val Pro Lys Ser 213: Gln 30 Asp	Ala Ala S5 Val Ile Val Glu 2130 Gly Fhe Pro	Val 20 Glu Ala Tyr Tyr 2128 Arg O Arg Arg Ser Asp 2136 Pro	Asn Lys Asn 2127 Asp 5 Asn Glu Val Lys 2135 Tyr	Asn Arg His 2125 Val OGly Ser Tyr 2133 Phe 60 Ile	Tyr 2124 Gln 55 Thr Gly Ile Arg 2132 Ala 55 Thr	Val 2122 Gly 10 Phe Ser Ser Leu 2130 Ala 20 Glu Leu Val	Lys 25 Val Arg Asp Glu 2129 Trp 5 Thr Asn Ala Thr 2137 Gly	Asp Ser Ile Gly 2127 Val OGln Gly Ser Val 2135 Arg	Gln Pro 2126 Met 75 Thr Lys Leu Ala 2136 Ser 65 Glu	Pro 2124 Gly 60 Ser Gly Val 2132 Gly Pro	Leu Phe Asn 2131 Glu Val Ile	Gln 30 Val Pro Thr His 2129 Thr 0 Gly Ser Asp Thr 2137 Gly	Phe Ser Gly Trp 21280 Val 95 Ser Leu Ser Pro 21360 Leu 75

	4074		Ile			Arg	Gln	Gly			Arg	Trp	Val		_	Asn	Phe
E>	4075		70	2139		C1	Q	G1	2140		**- 7	m)	C1	2140	-		C 3
	4076		-		Ser	GIU				Tnr	vaı				Ser	Pro	GIY
E>	4077		214:		G 3	D 1		2141		7.7			2142		63	m)	~ 1
	4078	Asp	Arg	Tyr	GIU	Phe								vaı	GTÀ	Thr	
E>	4079	2142	25	ъ -	a	C1 -	2143	30	G1	~1 .	7 .1 .	2143	35	70 -	70	<i>a</i> 1	21440
	4080	Ser	Pro	Pro	ser	Gin	ser	Ser	GIĄ	тте	11e	Met	Thr	Arg	Asp	GIU	Asn
E>		** 7	D	D	T1.	2144		D1	01		2145	_	DI	70	01	2145	
	4082	vaı	Pro	Pro			GIU	Pne	GIŸ								TTE
E>			-	~	2146		_	_	_	214	55				2147	-	_
	4084	тте	гàг		_	GIU	Ser				ьуѕ	Ата				GTÀ	Arg
E>		_	** 7	214		77 7	ml.		2148		70	01		2148		<i>a</i> 2	-
_	4086	Pro			Arg	vaı		_	Pne	ьys	Asp	СТĀ			TIE	GIU	гÀг
E>		D	2149		N 5 - 3-	03		2149			.		2150		0	T	Db -
	4088	_							ASN	vai				rnr	ser	Leu	
E>	4089				70 1				111.0	7		2151		mh m	17-1	~1	21520
	4090	vaı	Arg	Asp	ALA		Arg	Asp	HIS	Arg			Tyr	Thr	var		
E>	4091	T	7	71.	C ~ ~	2152		71.7	T	7.1.	2153		T	17-1	T	2153	-
	4092		ASII		2154	-	Ser	Ата		215		TTE	гуу		2155		GIII
E>	4093		Th ν				Val	1727				7 20	Dho			-	Thr.
п 、	4094	-	TIII	215	er.	гуз	vai	vaı	215		TTE	AIG	rne	2156		тте	1111
E/	4096		Clu								ת 1 ת	Dro	T 011		_	C1.	Cvc
F	4090	_	215	_	Met	1111		2157		ASP	нта	FIO	2158		Asp	GIY	Cys
E>	4098				Thr	Hie				Glu	T.ve	Ara			Ser	Δra	T.e.u
E>					1111		2159		110	Olu	цуз	2159		1111	DCI	nrg	21600
<u> </u>	4100								Lvs	Cvs	Glu			Ser	Tur	Thr	
E>		1714	112	1,1,0	nca	2160		1725	ny o		216		0111	OCL		2161	
	4102	Tle	Lvs	Leu	Tle			Asn	Glu				Ara	Val			
E>	4103		-10	200	2162		0-1		-	2162			5		2163		
	4104		Lvs	Phe			G1 v	Ara	Pro							_	Ala
E>	4105		10	2163			1		2164					2164			
-	4106		Ile			Thr	Val				Pro	Gly	Ile	Pro	Glu	Pro	Ser
E>			216	50	-			2169	_			-	2166				
	4108	Asn	Ile					Ile	Thr	Leu	Thr	Trp	Ala	Arq	Pro	Glu	Ser
E>	4109				-		216	70				216		_			21680
	4110	Asp	Gly						Gln	Tyr	Ile	Leu	Glu	Arg	Arg	Glu	Lys
E>		-	-	_		2168										2169	
	4112	Lys	Ser	Thr	Arg	Trp	Val	Lys	Val	Ile	Ser	Lys	Arg	Pro	Ile	Ser	Glu
E>					2170					2170					2171		
	4113																Phe
E>	4114	Thr	Arg			Val	Thr	Gly	Leu	Thr	Glu	Gly	Asn	Glu	Tyr	Glu	1110
	4114 4115		_	Phe 217	Lys 15			_	2172	20		_		2172	25		
_ ,	4114		_	Phe 217	Lys 15			_	2172	20		_		2172	25		
	4114 4115 4116 4117	His	Val 217	Phe 217 : Met 30	Lys 1 5 Ala	Glu	Asn	Ala 217 3	217 2 Ala 35	20 Gly	Val	Gly	Pro 217 4	217 2 Ala 10	Ser	Gly	Ile
	4114 4115 4116	His	Val 217	Phe 217 : Met 30	Lys 1 5 Ala	Glu	Asn	Ala 217 3	217 2 Ala 35	20 Gly	Val	Gly	Pro 217 4	217 2 Ala 10	Ser	Gly	Ile
E>	4114 4115 4116 4117 4118 4119	His Ser 2174	Val 217 3 Arg	Phe 217: Met 30 Leu	Lys 1 5 Ala Ile	Glu Lys	Asn Cys 217 !	Ala 217 3 Arg	2172 Ala 35 Glu	Gly Pro	Val Val	Gly Asn 2175	Pro 217 4 Pro	217 2 Ala 10 Pro	Ser Gly	Gly Pro	Ile Pro 21760
E>	4114 4115 4116 4117 4118	His Ser 2174	Val 217 3 Arg	Phe 217: Met 30 Leu	Lys 1 5 Ala Ile	Glu Lys	Asn Cys 217 !	Ala 217 3 Arg	2172 Ala 35 Glu	Gly Pro	Val Val	Gly Asn 2175	Pro 217 4 Pro 5 5	217 2 Ala 10 Pro	Ser Gly	Gly Pro	Ile Pro 21760
E>	4114 4115 4116 4117 4118 4119 4120 4121	His Ser 2174 Thr	Val 2173 Arg 15 Val	Phe 217: Met 30 Leu Val	Lys 15 Ala Ile Lys	Glu Lys Val 217 6	Asn Cys 217! Thr	Ala 217 3 Arg 50 Asp	2172 Ala 35 Glu Thr	Gly Pro Ser	Val Val Lys 217	Gly Asn 217 Thr	Pro 217 4 Pro 55 Thr	2172 Ala 10 Pro Val	Ser Gly Ser	Gly Pro Leu 217	Ile Pro 21760 Glu 75
E>	4114 4115 4116 4117 4118 4119 4120	His Ser 2174 Thr	Val 217 3 Arg 15 Val	Phe 217: Met 30 Leu Val	Lys 15 Ala Ile Lys	Glu Lys Val 217 6	Asn Cys 217! Thr	Ala 217 3 Arg 50 Asp	2172 Ala 35 Glu Thr	Gly Pro Ser	Val Val Lys 217	Gly Asn 217 Thr	Pro 217 4 Pro 55 Thr	2172 Ala 10 Pro Val	Ser Gly Ser	Gly Pro Leu 217	Ile Pro 21760 Glu 75

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508A

DATE: 05/30/2001
TIME: 11:49:02

E>	4123				217	80				217	85				217	90	
	4124	Ile	Glu	Met	Cys	Lys	Thr	Asp	Leu	Gly	Asp	Trp	His	Lys	Val	Asn	Ala
E>	4125			217				_	2180	_	-	_		2180			
	4126	Glu	Ala	Cys	Val	Lys	Thr	Arg	Tyr	Thr	Val	Thr	Asp	Leu	Gln	Ala	Glv
E>	4127		218			_		218					2182				-
	4128	Glu	Glu	Tyr	Lys	Phe	Arg	Val	Ser	Ala	Ile	Asn	Gly	Ala	Gly	Lys	Glv
E>	4129			-	-		218					2183			_	-	21840
	4130	Asp	Ser	Cys	Glu	Val	Thr	Gly	Thr	Ile	Lys	Ala	Val	Asp	Arg	Leu	Thr
E>	4131	-		-		218		-			218			-	_	2185	
	4132	Ala	Pro	Glu	Leu	Asp	Ile	Asp	Ala	Asn	Phe	Lys	Gln	Thr	His	Val	Val
E>	4133				218			•		218		4			218		
	4134	Arg	Ala	Gly	Ala	Ser	Ile	Arq	Leu	Phe	Ile	Ala	Tvr	Gln	Glv	Ara	Pro
E>	4135	_		218				_	2188				_	2188		3	
	4136	Thr	Pro	Thr	Ala	Val	Trp	Ser	Lys	Pro	Asp	Ser	Asn	Leu	Ser	Leu	Ara
E>	4137		218					2189			•		2190				5
	4138	Ala	Asp	Ile	His	Thr				Phe	Ser	Thr	Leu	Thr	Val	Glu	Asn
E>	4139						219					219					21920
	4140	Cys	Asn	Arq	Asn	Asp	Ala	Gly	Lys	Tyr	Thr	Leu	Thr	Val	Glu	Asn	Asn
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	4142	Ser	Gly	Ser	Lys	Ser	Ile	Thr	Phe	Thr	Val	Lys	Val	Leu	Asp	Thr	Pro
E>	4143		-		2194					2194		-			219		
	4144	Gly	Pro	Pro	Gly	Pro	Ile	Thr	Phe	Lys	Asp	Val	Thr	Arq	Gly	Ser	Ala
E>	4145	-		219					2196		-			2196			
	4146	Thr	Leu	Met	Trp	Asp	Ala	Pro	Leu	Leu	Asp	Gly	Gly	Ala	Arg	Ile	His
E>			219		_	_		2197			_	-	2198		-		
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E>	4149	2198	35				2199	90				2199	95		-		22000
	4150	Ile	Ser	Glu	Lys	Cys	Thr	Arg	Gln	Ile	Phe	Lys	Val	Asn	Asp	Leu	Ala
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E>	4153				2202	20				2202	25				2203	30	
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E>	4155			2203	35				2204	10				2204	15		
	4156	Pro	Ala	Pro.	Pro	Arg	Arg	Leu	Asp	Val	Val	Asp	Thr	Ser	Lys	Ser	Ser
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	4158	Ala	Val	Leu	Ala	Trp	Leu	Lys	Pro	Asp	His	Asp	Gly	Gly	Ser	Arg	Ile
E>	4159	2206	65				2207	70				2207	75				22080
	4160	Thr	Gly	Tyr	Leu	Leu	Glu	Met	Arg	Gln	Lys	Gly	Ser	Asp	Leu	Trp	Val
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	4162	Glu	Ala	Gly	His	Thr	Lys	Gln	Leu	Thr	Phe	Thr	Val	Glu	Arg	Leu	Val
E>	4163				2210	00				2210	05				2211	LO	
	4164	Glu	Lys	Thr	Glu	Tyr	Glu	Phe	Arg	Val	Lys	Ala	Lys	Asn	Asp	Ala	Gly
E>	4165			221	L 5				2212	20				2212	25		
	4166	Tyr	Ser	Glu	Pro	Arg	Glu	Ala	Phe	Ser	Ser	Val	Ile	Ile	Lys	Glu	Pro
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E>							2215	-				2215	-				22160
	4170	Thr	Cys	Lys	Ala	Gly	Ser	Pro	Phe	Thr	Ile	Asp	Val	Pro	Ile	Ser	Gly
E>	4171					221	55				221	70				2217	75

E>	4172 4173	Arg	Pro	Ala	Pro 221 8	_	Val	Thr	Trp	Lys 221 8		Glu	Glu	Met	Arg 221 9		Lys
	4174					Val	Ser				Thr	Lys	Asp			Thr	Leu
E>	4175			2219	-	_			2220		~		-	2220		_	
	4176									Asp	ser	GTÅ		_	Pne	ьeu	Tnr
E>	4177		2221		mb			2221		m 1	Dh.	0	2222		57_ 1	17 - 1	17 - 1
	4178			Asn	Thr				ьys	Thr				Thr	val	vaı	
E>	4179			70	ъ		2223		m1	01		2223					22240
	4180	тте	GIA	Arg		-		vaı	Thr	GLY			GIU	vaı	Ser		
E>	4181	^	7. 7	~ 1		2224	-	.	a .	m	2225		ς.	.	. .	2225	-
	4182	Ser	Ата				vaı	ьеu				GIU	Pro				GTÀ
E>	4183	~1	m)		2226		70			2226		T	7		2227	-	m).
	4184		Inr			THE	ASII				GIU	гуѕ	Arg			стХ	Thr
E>	4185		71.	2227		T	111		2228		17-1	T	7\	2228		T1 -	7
	4186			-	GIII	Leu				Ser	var.	гда			GIII	тте	гÀг
ピーーン	4187		2229		T	mh		2229		C1	m	C	2230	_	17-1	C	0
	4188			HIS	Leu		ьуs 223 1		мес		_	2231		Arg	vaı	ser	
E>	4189 4190			7~~	Dha			-						717	Dwa	т1.	22320
E>		GIU	MSII	Ary		2232		Ser	гуз	FIO	222	on on	ser	Ата		2233	
E>	4192	λla	Glu	Hic									Thr	Λνα			
F>	4193	лта	GIU	1113	2234		vai	110	110	2234		110	1111	Arg	2235		vai
E>	4194	ጥ‹‹ጉ	ніе	V = 1			Δen	λ 1 ລ	Mat			Δra	Trn	Glu			Tur
F>	4195	_		2235				ALG			116	лгу	тър	2236		110	TYL.
	4196										Tur	Tro	Val			Lvs	Glu
E>	4197		2237		OLy	001		2237		OT y	- y -		2238		Dyo	טעם	Ozu
	4198	Ara			Tle	Leu				Glu	Asn	Lvs			Cvs	Leu	Glu
E>	4199						2239		-1-			2239			-1-		22400
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	4206	Glu	Val					Arg	Ser	Thr	Val	Ser	Leu	Ile	Trp	Ser	Ala
E>	4207		2245					2245					2246				
	4208	Pro	Ala	Tyr	Asp				Lys	Val	Val			Ile	Ile	Glu	Arg
E>	4209						2247					2247					22480
	4210	Lys	Pro	Val				Gly	Asp				Leu	Lys	Cys		
E>			_	_		2248					2249				_	2249	
	4212	Thr	Ile				Asn	Phe				Thr	Ala	Leu			Gly
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	4216				Ser	GLu				Pro	Val	Thr			Asp	GLu	Tyr
E>	4217		2253			7.7		2253		7. 7	7.	.	2254		7 .	.	T7 - 1
	4218			Pro	гàг	АТа			Asp	Ата	Arg			GTÀ	Asp	ьeu	
E>	4219			7	7.7 -	C1 -	2255		T	77- 7	T	2255		7a 1 -	17 m 7	C1	22560
	4220	Thr	тте	Arg	Ala	GTA	ser	Asp	ьeu	val	ьeu	Asp	Ата	Ala	vaı	σтУ	σтУ

E>	4221					225	55				225	70				225	75
	4222	Lvs	Pro	Glu	Pro	Lys	Ile	Ile	Trp	Thr	Lys	Gly	Asp	Lys	Glu	Leu	Asp
E>	4223				2258				•	2258		-	•	-	2259		-
	4224		Cvs	Glu	Lvs	Val	Ser	Leu	Gln	Tvr	Thr	Glv	Lvs	Ara	Ala	Thr	Ala
E>	4225		- 4	225					2260				4	2260			
	4226	Val	Ile			Cvs	Asp	Ara			Ser	Glv	Lvs	Tvr	Thr	Leu	Thr
E>	4227		226:			-1-		226				2	2262				
	4228	Val								Ala	νаl	Ser			Val	Lvs	Val
E>	4229		_				226		-1-			226				-1-	22640
	4230			Ser	Pro	Glv			Glv	Lvs	Leu			Ser	Ara	Val	
E>	4231		· · · · ·			2264		0,10	0-1	2,0	226				• 9	226	
- 1	4232	Gln	Glu	T.VS	Cvs			Ala	Trp	Ser			Gln	Glu	Asp		
E>	4233	0111	OIU	טעם	226		200			226			01		226	_	021
	4234	Ala	Glu	Tle			Tvr	Tle	Val			Ara	Glu	Thr			Leu
E>	4235		014	226			-] -		2268		**** 9	9	014	2268		9	
	4236	Asn	Trn			Val	Glu	Glv			Pro	Thr	Leu			Val.	Val
E>	4237		2269					2269		-1-			2270		- 1 -		
	4238	Thr			Tle	Lvs	Asn		_	Tvr	Ile	Phe			Ara	Ala	Val
E>	4239		_				227			-1-		227:					22720
	4240													Pro	Ile	Val	Ala
E>	4241		-1-	- 1 -	1	2272					227					2273	
	4242	Ara	Asn	Ser	Phe			Pro	Ser	Pro	Pro	Glv	Ile	Pro	Glu	Glu	Val
E>	4243			-	227					2274		-			2275		
	4244	Glv	Thr	Glv	Lvs	Glu	His	Ile	Ile	Ile	Gln	Trp	Thr	Lys	Pro	Glu	Ser
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	4246	Asp	Glv	Glv	Asn	Glu	Ile	Ser	Asn	Tyr	Leu	Val	Asp	Lys	Arq	Glu	Lys
E>	4247	_		_				227		•			2278		•		-
	4248	Glu	Ser	Leu	Arq	Trp	Thr	Arg	Val	Asn	Lys	Asp	Tyr	Val	Val	Tyr	Asp
E>	4249				,	•	227				-	227				_	22800
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	4260	Leu	Glu	Mot	Cln	Glu	Lvs	Asp	Thr	Asn	Cln	Trn	m	Δra	Val	His	Thr
E>			σ_{\perp}	1.10 C	GIII	- L				1100	GTII	110	TAT	7119			
	4261			I-Je-C	GIII	228				1100	228		ıyı	Arg		2289	95
						228	35				228	90				2289	-
E>	4261 4262 4263					228 9	35		Glu		2289 Thr	90				228 9	-
E>	4262	Asn	Ala	Thr	Ile 229	228 0 Arg	35 Asn	Thr	Glu	Phe 229 (2289 Thr 05	9 0 Val	Pro	Asp	Leu 229 :	228 9 Lys LO	Met
	4262 4263 4264 4265	Asn Gly	Ala Gln	Thr Lys 229	Ile 229 Tyr 15	2280 Arg 00 Ser	35 Asn Phe	Thr Arg	Glu Val 2292	Phe 229 (Ala 20	2289 Thr 05 Ala	90 Val Val	Pro Asn	Asp Val 2292	Leu 229 : Lys 25	2289 Lys LO Gly	Met Met
	4262 4263 4264	Asn Gly	Ala Gln	Thr Lys 229	Ile 229 Tyr 15	228 0 Arg 00 Ser	35 Asn Phe	Thr Arg	Glu Val 2292	Phe 229 (Ala 20	2289 Thr 05 Ala	90 Val Val	Pro Asn	Asp Val 2292	Leu 229 : Lys 25	2289 Lys LO Gly	Met Met
E>	4262 4263 4264 4265 4266 4267	Asn Gly Ser	Ala Gln Glu 229	Thr Lys 229 : Tyr 30	Ile 229 Tyr 15 Ser	2280 Arg 00 Ser Glu	Asn Phe Ser	Thr Arg Ile 229	Glu Val 229 Ala 35	Phe 2290 Ala 20 Glu	2289 Thr 05 Ala Ile	90 Val Val Glu	Pro Asn Pro 229	Asp Val 229 2 Val 40	Leu 229 : Lys 25 Glu	2289 Lys LO Gly Arg	Met Met Ile
E>	4262 4263 4264 4265 4266	Asn Gly Ser	Ala Gln Glu 229	Thr Lys 229 : Tyr 30	Ile 229 Tyr 15 Ser	2280 Arg 00 Ser Glu	Asn Phe Ser	Thr Arg Ile 229	Glu Val 229 Ala 35	Phe 2290 Ala 20 Glu	2289 Thr 05 Ala Ile	90 Val Val Glu	Pro Asn Pro 229	Asp Val 229 2 Val 40	Leu 229 : Lys 25 Glu	2289 Lys LO Gly Arg	Met Met Ile
E>	4262 4263 4264 4265 4266 4267	Asn Gly Ser Glu	Ala Gln Glu 229	Thr Lys 229 : Tyr 30	Ile 229 Tyr 15 Ser	2280 Arg 00 Ser Glu	Asn Phe Ser	Thr Arg Ile 229: Leu	Glu Val 229 Ala 35	Phe 2290 Ala 20 Glu	2289 Thr 05 Ala Ile	90 Val Val Glu	Pro Asn Pro 2294 Lys	Asp Val 229 2 Val 40	Leu 229 : Lys 25 Glu	2289 Lys LO Gly Arg	Met Met Ile

E>	4270 4271		Arg	Ala	Gly	Ala 229		Leu						Val		Gly 2297	-
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	4274	Arg	Ala	Ile	Ile	Asp	Thr	Thr	Glu	Ser	Tyr	Ser	Leu	Leu	Ile	Val	Asp
E>	4275			2299	95	-			2300	00	-			2300			•
	4276				Ara	Tur	Asn	Δla								Glu	Asn
₽>	4277			11011	1119	- y -	1100	230:	1 E	цур	1 y 1		2302		711.0	OLU	
E/				C1	T	T	C	230.	. mb	17- 7	T				т	7	mt
	4278		ser	GTÀ	гуу	ьys								νат	IYL	ASP	
E>	4279							30				2303		_			23040
	4280	Pro	Gly	Pro				Val	Lys	Val	Lys	Glu	Val	Ser	_		
E>						2304					230	50				2305	
	4282	Val	Thr	Ile	Thr	Trp	Glu	Ile	Pro	Thr	Ile	Asp	Gly	Gly	Ala	Pro	Ile
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E>	4285			2307				-	2308	30				2308			_
	4286					LVS	Cvs	Ser	Lvs	Thr	T.eu	Ttr	Ara	Tle	Ser	Glv	Len
F>	4287		2309			2,72		2309			200		231			011	Dou
13 Z	4288	17 - 1			Th.∽	Mot				7 ~~	17-1				λcn	T10	Tur
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E>	4289		75 ~ 1	0.1	0.1	ъ.	231.	10	mt	0	70	231.		T	77.7		23120
	4290		TTE	GTA									vaı	ьeu	var		
E>	4291										2313					2313	-
	4292		Pro			Pro	Ala	Lys	Leu								Ser
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E>	4295			2315					231					2316			
	4296	Leu	Thr	Gly	Tyr	Val	Leu	Glu	Ala	Cys	Lys	Ala	Gly	Thr	Glu	Arg	Trp
E>	4297		2317	70				231	75				2318	30			
	4298	Met	Lys	Val	Val	Thr	Leu	Lys	Pro	Thr	Val	Leu	Glu	His	Thr	Val	Thr
E>	4299		_				2319					2319					23200
	4300	Ser	Leu	Asn	Glu				Tvr	Leu	Phe	Ara	Ile	Ara	Ala	Gln	Asn
E>						2320								_		2321	
	4302	Glu	Lvs	Glv													
F>	4303		1170	_	2322		014		_	2322					2323		
	4304		Aen				T.611	Pro				T.e.u	Ser	Thr			Gln
₽>	4305							110						2324		110	OIII
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F>	4307	_	2325		1113	vaı		232					232		vaı	116	110
E>	4308				70	D == 0									77.	C1	Com
E>	4309		55	_	~ 1	_	232	70									23280
	4310	Lys	Leu	Arg				Arg	Val				Thr	His	Thr		
E>						2328					2329					2329	
	4312	Ala	Lys			Ile	Arg	Glu	Thr	Thr	Ile	Arg	Asp	Thr			Tyr
E>	4313				2330	00				2330	05				233		
	4314	Thr	Leu	Glu	Leu	Lys	Asn	Val	Thr	Gly	Thr	Thr	Ser	Glu	Thr	Ile	Lys
E>	4315			2331	15				2332	20				2332	25		
	4316	Val	Ile	Ile	Leu	Asp	Lys	Pro	Glv	Pro	Pro	Thr	Glv	Pro	Ile	Lys	Ile
E>	4317		2333			•		2333					2334			-	
	4318				Asp	Ala						Ser			Pro	Pro	Glu
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 RAW SEQUENCE LISTING
 DATE: 05/30/2001

 PATENT APPLICATION: US/09/759,508A
 TIME: 11:49:02

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E>	4321			-	1	233					233					233	
	4322	Ala	His	Arq	Pro	Gly	Trp	Leu	Pro	Val	Ser	Glu	Ser	Val	Thr	Ara	Ser
E>	4323			_	2338	-	•			2338					2339	_	
	4324	Thr	Phe	Lvs	Phe	Thr	Ara	Leu	Thr	Glu	Glv	Asn	Glu	Tvr	Val	Phe	Ara
E>	4325			233					2340					2340			5
	4326	Va1	Ala			Asn	Ara	Phe			Glv	Ser	Tvr	Leu	Gln	Ser	Glu
E>	4327		234				_	2341	-		4		2342				
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E>	4329				- 1	5	234:			5		234:					23440
	4330			Ile	Phe	asp			Ara	Asp	Glv			Leu	Thr	Tro	
E>	4331					2344					2345					234	
	4332	Pro	Pro	Glu	Asp	Asp	Glv	Glv	Ser	Gln	Val	Thr	Glv	Tvr	Ile	Val	Glu
E>	4333				234		2			2346			2	- 4	234		
	4334	Ara	Lvs	Glu								Ara	Val	Asn	Lvs	Val	Pro
E>	4335	,	_	234		,			2348			-		2348	-		
	4336	Val	Thr	Met	Thr	Ara	Tvr				Glv	Leu	Thr	Glu	Glv	Leu	Glu
E>	4337		234			,		2349			-		2350		-		
	4338	Tvr	Glu	His				Ala	Ile	Asn	Ala	Arq	Gly	Ser	Gly	Lvs	Pro
E>	4339				,		235:					235				- 4	23520
-	4340	Ser	Ara	Pro	Ser				Val	Ala	Met	Asp	Pro	Ile	Ala	Pro	Pro
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	4342	Gly	Lys	Pro	Gln	Asn	Pro	Arq	Val	Thr	Asp	Thr	Thr	Arq	Thr	Ser	Val
E>	4343	-	•		2354			_		2354				_	2355		
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E>	4347	_	235					2357			•		2358		•		-
	4348	Cys	Asn	Thr	Thr	Pro	Thr	Lys	Ile	Arg	Glu	Tyr	Thr	Leu	Thr	His	Leu
	4349						2359			_		2359					23600
	4350			Gly	Ala	Glu	Tyr	Arg	Phe	Arg	Val	Leu	Ala	Cys	Asn	Ala	Gly
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E>	4359	_	-				236		-	-		236		_		-	23680
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E>	4361		-			2368					2369					2369	
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	4364	Glu	Asn	Lys	Cys	Gly	Lys	Lys	Ala	Val	Tyr	Ile	Lys	Val	Arg	Val	Ile
E>	4365			237		-			2372					2372			
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E>	4367							2373					2374		_		

	4368	Val	Arg	Ser	Val	Arg	Val	Ser	Trp	Arg	Pro						
E>	4369 4370	2374	45	Tlo	T 011	C1			T 0					77-1			23760
F>	4371	Ara	изр	тте	ьеи	237	r Pr	TTG	пеп		237'		GIU	var		ьуs	
E>	4372	Δla	Trn	ጥኒኒዮ				Sor	7) * ~ ~				ጥሎም	802			
F>	4373		115	1 y 1.	237	116	rap	Ser	Ary			GLY		Ser	2379		vaı
	4374		Glv	T.011										Wa 1			Clu
E>	4375			2379		OLU	11011		2380		1113	1110	_	2380		пла	Giu
	4376					Tle	Ser				Lvs	Ser				Val	Thr
E>	4377	11011	2381	10	OLY	110	DCI	238:		пси		DCI	2382		110	VAI	1111
	4378	Pro										Pro			Pro	Pro	Glu
E>	4379		25				238:	30				2383					23840
	4380		Leu	Asp	Val	Thr	Lvs	Ser	Ser	Val				Trp	Ser	Ara	
E>	4381			•		2384	1 5				238					238	
	4382	Lys	Asp	Asp	Gly	Gly	Ser	Arg	Val	Thr	Gly	Tyr	Tyr	Ile	Glu	Arg	Lys
E>	4383	_	_	-	238	50		-		2386	65 ⁻	-	-		2387		-
	4384	Glu	Thr	Ser	Thr	Asp	Lys	Trp	Val	Arg	His	Asn	Lys	Thr	Gln	Ile	Thr
E>	4385			2387	-				2388					2388			
	4386	Thr	Thr	Met	Tyr	Thr	Val	Thr	Gly	Leu	Val	Pro	Asp	Ala	Glu	Tyr	Gln
E>	4387		2389	90	_			2389	95				2390				
	4388	Phe	Arg	Ile	Ile	Ala								Glu	Thr	Ser	Pro
E>	4389																23920
	4390	Ala	Ser	Glu			Val	Cys	Lys	Asp							
E>		_				2392	25	_			2393	30				2393	
	4392	Pro	Gly				Ile	Leu	Ser			Lys	Asp	Ser			Leu
E>	4393	G1	m		2394		G1	~	70	2394		. .	~ 1	T 1	2395		m
	4394 4395															GLY	Tyr
F>	4396				55 Tur									2396		C02	7.00
E>			2397		тут	Arg			75				2398		гда	ser	ASII
<u> </u>	4398				Tle	T.vs									T.e.ii	T.e.ii	Glu
E>	4399																24000
- '	4400																
E>					- 1 -	2400		9			2401			014		2401	
	4402	Ser	Arq	Pro	Arg	Arg	Thr	Ala	Met				Thr	Lys	Leu		
E>			,		2402										2403		
	4404	Gly	Glu	Ala	Pro	Gly	Ile	Arg	Lys	Glu	Met	Lys	Asp	Val	Thr	Thr	Lys
E>	4405			2403	35				2404	10				2404	15		
	4406	Leu	Gly	Glu	Ala	Ala	Gln	Leu	Ser	Cys	Gln	Ile	Val	Gly	Arg	Pro	Leu
E>	4407		2405	50				2405	55				2406	50			
	4408			Ile	Lys				Phe	Gly	Lys	Glu	Leu	Ile	Gln	Ser	Arg
E>	4409						2407					2407					24080
	4410	Lys	Tyr	Lys				Asp	Gly	Arg	Thr	His	Thr	Leu			
E>	_					2408							_			2409	
	4412	Thr	GLu	Glu			Asp	Giu			_	Thr	Cys				Asn
E>		C1	17-1	~ 1	2410		C1:	ml -		2410		.	T .		2411		ml
₽_ \	4414	GIU				val	GIU	Thr					Leu			А1а	rnr
ルーーン	4415																
-	4415 4416	Dro		2411		Dro	C1	Ф	2412		T		T	2412		C1	ח ז ת

E>	4417		2413	30				241:	35				241	40			
	4418	Val	Gly	Ser	Thr	Leu	Arg	Leu	His	Val	Met	Tyr	Ile	Gly	Arq	Pro	Val
E>	4419						241!					241		•			24160
	4420			Met	Thr	Trp	Phe	His	Glv	Gln	Lvs	Leu	Leu	Gln	Asn	Ser	Glu
E>	4421					241					241					241	
- '	4422	Asn	Tle	Thr	Tle			Thr	Glu	His			His	Leu	Val		
E>	4423		440		241					2418					2419		-,0
	4424	Δen	Val	Gln			Thr	Hie			-	Тиг	Lvs			-	Ser
F>	4425	71511	VUL	241		цуо	1,117	1110	2420		БуО	- 1 -	טעם	2420		LCu	001
B>	4426	Λen	V = 1			Thr	V = 1	Δen			T.011	Δen	V = 1			Gln	Aen
F>	4427		242:		Gry	TIIL		242:		116	шец		2422		110	OIII	лэр
E>	4428				T	Dro				Tlo	17-1				Tou	T 011	Two
-				ASP	гуу	FIU	242:		FIO	116	var	242:		мта	пец	ьeu	24240
ピーーン	4429 4430			77.	Val.	T10			T	Dxa	Dwo			7.00	C1	C1	
		ASII	ser	Ald				тър	гуѕ		242		ASP	ASP			
E>	4431	m	T1.	m 1+		2424		17-1	C1				7.7	T		242	-
		-	тте	THE		_	val	vai		-	_	GIU	Ald	гуѕ		_	ALA
E>	4433		m	G1	242		Q	0		2420		77- 7	mъ	mh	2427	-	T1.
	4434		-								ser	Val	IIII	2428		Arg	rre
E>	4435			242				77-			m	Dh -	70			7.1.	C1
	4436				Thr	GIU	Asn			Tyr	Tyr	Pne			ser	Ата	GIN
ピーー>	4437		2429	_	0.1	T 3	a	242		T	G1	**- 1	2430		77-7	TT - T	T3 -
	4438			Phe	GTĀ	тте	Ser	Asp	Pro	ьeu	GIU	val	Ser	Ser	vaı		
E>	4439				_	m1 -	243.	10		~1	2.1.	243.	(5 (1)	T	D		24320
	4440		Lys	Ser	Pro			ьys	Pro	GTA			GTÀ	глs	Pro		
E>	4441					243	_	~	~	1	2433		_	-	_	243	-
	4442		Ala									Ala	Trp				Ala
E>	4443											_	_		2435		~ .
	4444		_	_	_		-				Tyr	Tyr	Leu		-	Arg	Glu
E>	4445			243					2430					243		_	
	4446	-	_							Val	Thr	Thr			He	Arg	Glu
E>	4447		243					243					243		_		
	4448			Phe	Ser				Leu	He	Glu			Glu	Tyr	Glu	
E>	4449						243		_			243					24400
	4450		Val	Lys				Leu	Gly	Gly	Glu	Ser	Glu	Trp			
E>	4451					244					244					244:	
	4452		Glu	Pro			Pro	Lys				Pro	Ile	Gln			His
E>	4453				244:					2443					2443		
	4454	Phe	Lys	Glu	Glu	Leu	Arg	Asn	Leu	Asn	Val	Arg				Asn	Ala
E>	4455			244										244			
	4456	Thr	Leu	Val						His	Pro	Lys	Pro	Ile	Val	Lys	Trp
E>	4457		244					244					244				
	4458								Ile	Ala	Asp	Gly	Leu	Lys	Tyr	Arg	Ile
E>	4459																24480
	4460	Gln	Glu	Phe	Lys	Gly	Gly	Tyr	His	Gln	Leu	Ile	Ile	Ala	Ser	Val	Thr
E>	4461					244	35				244	90				244	95
	4462	Asp	Asp	Asp	Ala	Thr	Val	Tyr	Gln	Val	Arg	Ala	Thr	Asn	Gln	Gly	Gly
E>	4463				245	00				245	05				245:	LO	
	4464	Ser	Val	Ser	Gly	Thr	Ala	Ser	Leu	Glu	Val	Glu	Val	Pro	Ala	Lys	Ile
E>	4465			245					245					245			

	4466	His	Leu	Pro	Lys	Thr	Leu	Glu	Gly	Met	Gly	Ala	Val	His	Ala	Leu	Arg
E>	4467		2453					2453					2454				
	4468	-		Val	Val				Ile	Pro				Lys	Pro	Asp	
E>	4469				_		2455			_		2455		_	_		24560
	4470		He	Thr	Trp								_		Asn		
E>	4471		~-			2456		_			2457	-	_			245	_
	4472		GIn	Val			Thr	Arg				Ser	Leu	Val			Asn
E>	4473		1	~1	2458		_	- 1		2458				~	2459		_
	4474		Val		Arg	ràs	Asp	Ala					Val			гàг	Asn
E>	4475		۰,	2459	3 5	_	~ 1	-		00			_	2460	-	_	
	4476	-			He	Asp		_		Val	GLu		-		Ala	Asp	Val
E>	4477		2461			_		2461			_		2462		_	_	_
	4478		-	Pro	Pro							-			_	-	
E>	4479			.	m1		2463			7. T.		2463					24640
	4480	val	Asn	Leu				GIU	Pro				GTÄ	GTA			
E>	4481	m)-		m		2464		T	~		2465		~ 1	G1 .		2465	-
	4482		Asn	Tyr								Thr	ALa	GIU	_	_	ьеи
E>	4483		** 1	01	2466			01		2466		m1	** . 1	~ 1	2467		5 1
	4484	Arg				Ата	Arg				Tyr					Leu	Phe
E>	4485	G1		2467		m	C1 -		2468		т1 _	7.1.		2468		Dh.a	C1
	4486	_													гÀг	Pne	GTÀ
E>	4487		2469		D			2469					2470		T	C1	7
	4488								ser	GIU				THE	гуу	GIU	
ピーーン	4489 4490				ת ד ת				71 ~ ~ ~	C1		2471		C1	mh	7)	24720
F>	4491	-	THE	Arg	Ата	2472		ιγι			2473		Asp	GIU	THE	2473	
E>	4492		cor	Mot	Thr								Tvc	Clu	T 011		
F>	4493	vai	Ser		2474		піа	per		2474		1111	пуз	GIU	2475		GLU
E>	4494	I.vs	Tur			-	Glu	Asn			-	Glv	Glu	Phe		-	Val
E>	4495	_	+ y +	2475		1114	OIU	7100		50			Oru	2476		110	Vai
	4496		Ara			Glu	Thr	Ser					Tyr			Lvs	Phe
E>	4497		2477			0_0		2477		-1			2478			_10	
	4498				Lvs	Glv				Val	Leu			-	Glu	Ile	Ser
E>	4499		_		-1-			90				2479		-1-			24800
	4500	Ile	Leu	Asn	Ile						Ile	Leu	His	Leu	His	Glu	Ser
E>						2480			-							2483	
							, ,				2481	. •					~ 1
	4502	Phe	Glu	Ser			-	Leu	Val				Glu	Phe	Ile	Ser	GTA
E>	4502	Phe	Glu	Ser		Glu	-	Leu	Val		Ile		Glu	Phe	Ile 248 3		GTÀ
E>	4502				Met 2482	Glu 20	Glu			Met 2482	Ile 25	Phe			2483	30	_
E>	4502 4503 4504				Met 2482 Phe	Glu 20	Glu	Ile		Met 2482 Thr	Ile 25	Phe	Phe		248 3 Leu	30	_
	4502 4503 4504	Leu	Asp	Ile 248 3	Met 2482 Phe 5	Glu 2 0 Glu	Glu Arg	Ile	Asn 248 4	Met 2482 Thr 10	Ile 2 5 Ser	Phe Ala	Phe	Glu 248 4	248 3 Leu 1 5	80 Asn	Glu
E>	4502 4503 4504 4505 4506 4507	Leu Arg	Asp Glu 248 5	Ile 2483 Ile 50	Met 2482 Phe S5 Val	Glu 20 Glu Ser	Glu Arg Tyr	Ile Val 2485	Asn 248 4 His	Met 2482 Thr 10 Gln	Ile 25 Ser Val	Phe Ala Cys	Phe Glu 248 6	Glu 2484 Ala 60	2483 Leu I 5 Leu	Asn Gln	Glu Phe
E>	4502 4503 4504 4505 4506	Leu Arg	Asp Glu 248 5	Ile 2483 Ile 50	Met 2482 Phe S5 Val	Glu 20 Glu Ser	Glu Arg Tyr	Ile Val 2485	Asn 248 4 His	Met 2482 Thr 10 Gln	Ile 25 Ser Val	Phe Ala Cys	Phe Glu 248 6	Glu 2484 Ala 60	2483 Leu I 5 Leu	Asn Gln	Glu Phe
E>	4502 4503 4504 4505 4506 4507 4508 4509	Leu Arg Leu 2486	Asp Glu 2485 His	Ile 2483 Ile 50 Ser	Met 2482 Phe 85 Val	Glu 20 Glu Ser Asn	Glu Arg Tyr Ile 2487	Ile Val 2485 Gly 70	Asn 2484 His 55 His	Met 2482 Thr 10 Gln Phe	Ile 25 Ser Val Asp	Phe Ala Cys . Ile 2487	Phe Glu 2486 Arg	Glu 2484 Ala 0 Pro	2483 Leu 15 Leu Glu	Asn Gln Asn	Glu Phe Ile 24880
E>	4502 4503 4504 4505 4506 4507 4508	Leu Arg Leu 2486	Asp Glu 2485 His	Ile 2483 Ile 50 Ser	Met 2482 Phe 85 Val	Glu 20 Glu Ser Asn	Glu Arg Tyr Ile 2487 Arg	Ile Val 2485 Gly 70 Ser	Asn 2484 His 55 His	Met 2482 Thr 10 Gln Phe	Ile 25 Ser Val Asp	Phe Ala Cys . Ile 2487 Lys	Phe Glu 2486 Arg	Glu 2484 Ala 0 Pro	2483 Leu 15 Leu Glu	Asn Gln Asn	Glu Phe Ile 24880
E>	4502 4503 4504 4505 4506 4507 4508 4509 4510	Leu Arg Leu 2486 Ile	Asp Glu 2485 His 55 Tyr	Ile 2483 Ile 50 Ser Gln	Met 2482 Phe 35 Val His	Glu 20 Glu Ser Asn Arg 2488	Glu Arg Tyr Ile 2487 Arg	Ile Val 2485 Gly 70 Ser	Asn 2484 His 55 His	Met 2482 Thr 10 Gln Phe Thr	Ile 25 Ser Val Asp Ile 2489	Phe Ala Cys . Ile 2487 Lys	Phe Glu 2486 Arg 75 Ile	Glu 2484 Ala 50 Pro	2483 Leu 5 Leu Glu	Asn Asn Asn Phe 2489	Glu Phe Ile 24880 Gly 95
E> E> E>	4502 4503 4504 4505 4506 4507 4508 4509 4510 4511 4512	Leu Arg Leu 2486 Ile	Asp Glu 2485 His 55 Tyr	Ile 2483 Ile 50 Ser Gln	Met 2482 Phe 35 Val His Thr	Glu 20 Glu Ser Asn Arg 2488 Leu	Glu Arg Tyr Ile 2487 Arg	Ile Val 2485 Gly 70 Ser	Asn 2484 His 55 His	Met 2482 Thr 10 Gln Phe Thr	Ile 25 Ser Val Asp Ile 2489 Asn	Phe Ala Cys . Ile 2487 Lys	Phe Glu 2486 Arg 75 Ile	Glu 2484 Ala 50 Pro	2483 Leu 5 Leu Glu Glu Leu	Asn Gln Asn Phe 2489	Glu Phe Ile 24880 Gly 95
E> E>	4502 4503 4504 4505 4506 4507 4508 4509 4510 4511 4512 4513	Leu Arg Leu 2486 Ile Gln	Asp Glu 2485 His 55 Tyr	Ile 2483 Ile 50 Ser Gln	Met 2482 Phe 35 Val His Thr Gln 2490	Glu 20 Glu Ser Asn Arg 2488 Leu	Glu Arg Tyr Ile 2487 Arg S5 Lys	Val 2485 Gly 70 Ser Pro	Asn 2484 His 55 His Ser	Met 2482 Thr 10 Gln Phe Thr Asp 2490	Ile 25 Ser Val Asp Ile 2489 Asn	Phe Ala Cys Ile 2487 Lys 0 Phe	Phe Glu 2486 Arg 75 Ile Arg	Glu 2484 Ala 50 Pro Ile Leu	2483 Leu 5 Leu Glu Glu Leu 2491	Asn Gln Asn Phe 2489 Phe	Glu Phe Ile 24880 Gly 95 Thr
E> E> E>	4502 4503 4504 4505 4506 4507 4508 4509 4510 4511 4512	Leu Arg Leu 2486 Ile Gln	Asp Glu 2485 His 55 Tyr	Ile 2483 Ile 50 Ser Gln	Met 2482 Phe 35 Val His Thr Gln 2490	Glu 20 Glu Ser Asn Arg 2488 Leu	Glu Arg Tyr Ile 2487 Arg S5 Lys	Val 2485 Gly 70 Ser Pro	Asn 2484 His 55 His Ser	Met 2482 Thr 10 Gln Phe Thr Asp 2490	Ile 25 Ser Val Asp Ile 2489 Asn	Phe Ala Cys Ile 2487 Lys 0 Phe	Phe Glu 2486 Arg 75 Ile Arg	Glu 2484 Ala 50 Pro Ile Leu	2483 Leu 5 Leu Glu Glu Leu 2491	Asn Gln Asn Phe 2489 Phe	Glu Phe Ile 24880 Gly 95 Thr

E>	4515			249	15				2492	20				2492	25		
	4516	Thr	Ala	Thr	Asp	Met	Trp	Ser	Leu	Gly	Thr	Leu	Val	Tyr	Val	Leu	Leu
E>	4517		2493		_			2493		-			2494				
	4518	Ser	Gly	Ile	Asn	Pro	Phe	Leu	Ala	Glu	Thr	Asn	Gln	Gln	Ile	Ile	Glu
E>	4519		_				249					249					24960
	4520	Asn	Ile	Met	Asn	Ala	Glu	Tyr	Thr	Phe	Asp	Glu	Glu	Ala	Phe	Lys	Glu
E>						249		-			2497					249	
	4522	Ile	Ser	Ile	Glu	Ala	Met	Asp	Phe	Val	Asp	Arg	Leu	Leu	Val	Lys	Glu
E>					2498			•		2498		_			2499		
		Ara	Lvs	Ser			Thr	Ala	Ser			Leu	Gln	His	Pro	Trp	Leu
E>		_	4	249					2500					2500			
	4526	Lvs	Gln			Glu	Ara	Val	Ser	Thr	Lys	Val	Ile	Arg	Thr	Leu	Lvs
E>	4527	_	250					250:			.1		2502				
	4528				Tvr	Tvr	His			Ile	Lvs	Lvs			Asn	Met	Val
E>	4529			5	- 3 -	-1-	250					2503					25040
	4530			Ala	Ala	Ara			Cvs	Glv				Ara	Ser	Gln	Lvs
E>						250			- , , -		250			5		2505	
- 1	4532	Glv	Val	Ser	Va1			Val	Lvs				Ile	Glu	Ile		_
E>		J. 1			250		-10			250					250		
	4534	Val	Ser	Glv			Met	His				Glu	Glu	Glv			Val
E>		• • •	001	250'		110			2508		021		0.1.	2508		0	
	4536	Luc	ጥህን			T.vc	Tle	Glu			Asn	Gln	Ser			Val	Thr
F>	4537	_	2509		Cys	БyЗ	110	2509			пор		2510		O±		****
	4538				Glv	Val	Δrα			Glu	Agn	Ser			Tur	Glu	Tle
F>	4539	2510	ıy⊥ N5	TIIC	CLY		251:		БСи	Olu	11011	251:		ت و د	+ y -	01.0	25120
E>	4540			Glu	Zen				T1_	T.en	Tyr			Asn	Tle	Thr	
E>		1111	ı yı	OLU	гар	2512		naa	110	пси	2513		د برد	1101	110	2513	
	4542	Lan	Aen	Δen	Glv			Δra	Cvs	Lvs		-	Asn	Asn	Tur		
	4543		rsb	лэр	2514		7 7 7	my	Cys	2514		var	11011	mop	251!		G.L.G.
E/	4544		Sor	Sor			Glu	T.011	Dho			Glv	17 a 1	Δra			Tur
F>	4545				55						цуз	GLY		251		Val	1 7 1
E>	4546										Luc	Tla				Thr	Asn
₩	4547		251'		Cys	ALG	ALY	251'	75	БУЗ	шуз	116	2518		Ary	1111	ASP
E>	4548				T 011	Ton	Clu	727	Dra	Dro	Clu	Dho			Dro	Ton	Tur
	4549				ьеи							2519		пец	FIU	ьeu	25200
E>	4550													C1.,	17-1	Th x	
E>		ASII	ьуѕ	1111	нта	2520		GTĀ	Giu	ASII	252		File	GTÀ	vai	2522	
ピーーン	4552	mb w	1701	111.0	Dwo			шіс	17-1	Thγ			Tvc	C02	C1		_
			vaı	HIS	2522		PIO	птз	val		112 2 5			Ser	252:		гда
E>	4553		T	D			7.00	7	T					C1.,			T
	4554		ьys			Asp	Asn	Asp			Tyr	Inr	Pne			Asp	ьуs
E>	4555		T	252		т	m1	т1 -	2524		17-1	mb	mh	2524	_	7.00	710
	4556			-						ser	vaı	Thr		-	Asp	Asp	Ата
F:>	4557		252				7.7			T	m	C1	2520		C	C	T
	4558		_	Thr	vaı			-	ASN	гуѕ	туг			Asp	ser	Cys	
E>	4559			_	m1		252			Б		252		70	0	mı.	25280
	4560	АТа	гÀг	ьeu	Tur			ьeu	H1S	rro			inr	Asp	ser		
E>			ъ.		D1	252		T	T	707 -	2529		01.	Cree	C1	2529	
	4562	Arg	Pro	Met		_	Arg	ьeu	ьeu			ΑΙа	GLU	Cys			дТΆ
E>	4563				2530	טע				253	כט				253:	ΙU	

F>	4564 4565		Ser	Val 253	Cys	Phe	Glu	Ile	Arg 2532							Pro	Thr
E/	4566		T 120											2532		7	T1-
	4567		253		GIU					PIO	ьеп			_	Pro	Asn	ire
E>					***			2533		m	m		2534		- 1	~	_
	4568			тте	HIS	Glu		Leu	Asp	Tyr	Tyr			His	lle	Arg	_
E>	4569			_		_	2535	50	_	_	_	253					25360
	4570	Thr	Leu	Pro									Thr	Ala			
E>	4571					2536										2537	
	4572		Gly	Ser		Ser	Суѕ	Gln	Ala			Gln	Val	Glu	Arg	Leu	Arg
E>	4573				2538					253	-				2539	-	
	4574	Tyr									Glu	Glu				His	Val
E>	4575			2539					2540					2540			
	4576	${\tt Gln}$	Lys					Thr	Leu	Arg	Met	Ala	Glu	Ile	Leu	Ser	Gly
E>	4577		254:					2541					2542				
	4578	Thr	Glu	Ser	Val	Pro	Leu	Thr	Gln	Val	Ala	Lys	Glu	Ala	Leu	Arg	Glu
E>	4579											2543					25440
	4580	Ala	Ala	Val	Leu	Tyr	Lys	Pro	Ala	Val	Ser	Thr	Lys	Thr	Val	Lys	Gly
E>						2544					2545					2545	
	4582	Glu	Phe	Arg	Leu	Glu	Ile	Glu	Glu	Lys	Lys	Glu	Glu	Arg	Lys	Leu	Arg
E>					2546					254					2547		
	4584	Met	Pro	Tyr	Asp	Val	Pro	Glu	Pro	Arg	Lys	Tyr	Lys	Gln	Thr	Thr	Ile
E>				2547	75				2548					2548			
	4586	Glu	Glu	Asp	Gln	Arg	Ile	Lys	Gln	Phe	Val	Pro	Met	Ser	Asp	Met	Lys
E>			2549										2550		_		-
	4588	Trp	Tyr	Lys	Lys	Ile	Arg	Asp	Gln	Tyr	Glu	Met	Pro	Gly	Lys	Leu	Asp
E>	4589			_			2551	LO		_		2551		_	_		25520
	4590	Arg	Val	Val	Gln							Arg	Leu	Ser	Arg	Trp	Glu
E>						2552			-							2553	
	4592	Gln	Phe	Tyr	Val	Met	Pro	Leu	Pro	Arg	Ile	Thr	Asp	Gln	Tyr	Arg	Pro
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	4594	Lys	Trp	Arg	Ile	Pro	Lys	Leu	Ser	Gln	Asp	Asp	Leu	Glu	Ile	Val	Arg
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	4596	Pro	Ala	Arg	Arg	Arg	Thr	Pro	Ser	Pro	Asp	Tyr	Asp	Phe	Tyr	Tyr	Arq
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	4598	Pro	Arg	Arg	Arg	Ser	Leu	Gly	Asp	Ile	Ser	Asp	Glu	Glu	Leu	Leu	Leu
E>	4599			-				90 -				2559					25600
	4600	Pro						Ala	Met	Lys	Arg	Thr	Glu	Glu	Glu	Arg	Leu
E>				-	-	2560					2561					2561	
	4602	Arg	Leu	Glu	Glu	Glu	Leu	Glu	Leu	Gly	Phe	Ser	Ala	Ser	Pro	Pro	Ser
E>		•			2562					2562					2563		
	4604	Arg	Ser	Pro	Pro	His	Phe	Glu	Leu	Ser	Ser	Leu	Arq	Tyr	Ser	Ser	Pro
E>		-		2563					2564				-	2564			
	4606	Gln	Ala	His	Val	Lys	Val	Glu	Glu	Thr	Arg	Lys	Asn	Phe	Arq	Tyr	Ser
E>			2565					2565					2566		-	-	
	4608	Thr			Ile					Glu	Ala	Ser	Thr	Ser	Tyr	Ala	Glu
E>	4609				-		2567					2567			-		25680
-	4610			Glu	Ara				Ala	Ala				Pro	Lys	Gln	
E>			9			2568					2569				- 2 -	2569	_
	4612	Gln	Ara	Ile	Met		_	Ara	Glu	Asp			Leu	Leu	Ara		-
			9					7							9		

E>	4613				2570	00				2570	05				257	10	
	4614	Thr	Thr	Thr	Gln	His	Leu	Ser	Glu	Tyr	Lys	Ser	Glu	Leu	Asp	Phe	Met
E>	4615			257:	15				2572	20				2572	25		
	4616	Ser	Lys	Glu	Glu	Lys	Ser	Arg	Lys	Lys	Ser	Arg	Arg	Gln	Arg	Glu	Val
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	4618	Thr	Glu	Ile	Thr	Glu	Ile	Glu	Glu	Glu	Tyr	Glu	Ile	Ser	Lys	His	Ala
E>	4619	2574	45				2575	50				2575	55				25760
	4620	Gln	Arg	Glu	Ser	Ser	Ser	Ser	Ala	Ser	Arg	Leu	Leu	Arg	Arg	Arg	Arg
E>	4621					257	65				257	70				257	75
	4622	Ser	Leu	Ser	Pro	Thr	Tyr	Ile	Glu	Leu	Met	Arg	Pro	Val	Ser	Glu	Leu
E>											85				2579		
	4624	Ile	Arg	Ser	Arg	Pro	Gln	Pro	Ala					Asp	Asp	Thr	Glu
E>	4625			2579	95				2580	00				2580)5		
	4626	Arg											Arg	Ser	Pro	Ser	Pro
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	4628						Ser	Leu	Ser	Arg	Phe	Glu	Arg	Ser	Ala	Arg	Phe
E>							2583										25840
	4630	Asp	Ile	Phe	Ser											Thr	Gln
E>																258	
	4632	Lys	Thr	Ser								Ser	Gln	Gln	Pro	Phe	Thr
E>										2586					258		
	4634	Leu	Asp	His							Arg	Met				Arg	Val
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E>												2591					25920
	4640	Ser	Lys	Ile	His	_		Asn	Thr	Ser			Leu	Thr	Leu		
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	4642					Thr	Asp	Asp	Ser								Thr
E>					2594	40		_	_	2594					259		
	4644		_	-	_	GLu	Ala	Ser			Ala	Thr	Leu	_		Thr	Gly
E>				259			_		259		_	_	_	2596			_
	4646	_	_							GIn	Arg	Arg	_		GLu	Val	Pro
E>			259		_,					_		~ -	2598				_
	4648	-												Tyr	Ala	۷al	
E>							2599			6 3		2599	_	_		_	26000
	4650	Ser	Phe	ГЛS	Ĺys	Thr	Ser	Glu	Met	Glu	Ala	Ser	Ser	Ser	val	Arg	GLu

VERIFICATION SUMMARY DATE: 05/30/2001 PATENT APPLICATION: US/09/759,508A TIME: 11:49:03

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